



LibQUAL+™ Spring 2003 Survey

Institution Results

Drake University

Association of Research Libraries / Texas A&M University

www.libqual.org



LibQUAL+™ Spring 2003 Survey

Institution Results

Drake University

Contributors

Colleen Cook
Texas A&M University

Fred Heath
Texas A&M University

Bruce Thompson
Texas A&M University

Consuella Askew
Association of Research Libraries

Amy Hoseth
Association of Research Libraries

Martha Kyrillidou
Association of Research Libraries

Jonathan D. Sousa
Association of Research Libraries

Duane Webster
Association of Research Libraries

Association of Research Libraries / Texas A&M University

www.libqual.org

Association of Research Libraries

21 Dupont Circle NW

Suite 800

Washington, DC 20036

Phone 202-296-2296

Fax 202-872-0884

<<http://www.libqual.org>>

Copyright © 2003 Association of Research Libraries

ISBN 1-59407-061-X

1 Introduction

1.1 Acknowledgements

This notebook contains information from the fourth administration of the LibQUAL+™ protocol. The material on the following pages is drawn from the analysis of more than 125,000 responses from 308 participating institutions collected in the spring of 2003.

The LibQUAL+™ project requires the skills of a dedicated group. We would like to thank several members of the LibQUAL+™ team for their key roles in this developmental project. From Texas A&M University, the project management role of Colleen Cook, the quantitative guidance of Bruce Thompson, and the qualitative leadership of Yvonna Lincoln have been key to the project's integrity. The behind-the-scenes roles of Bill Chollet and others from the library Systems and Training units were also formative. From the Association of Research Libraries, the oversight role of Martha Kyrillidou and the day-to-day contributions of Consuella Askew, Jonathan Sousa, and Amy Hoseth were fundamentally important. Julia Blixrud and Kaylyn Hipps were also important contributors.

A New Measures Initiative of this scope is possible only as the collaborative effort of many libraries. To the directors and liaisons at all 308 participating libraries goes the largest measure of gratitude. Without your commitment, the development of LibQUAL+™ would not have been possible. We would also like to extend a special thank you to administrators at several participating consortia, including but not limited to: Tom Sanville and Jeff Gatten from OhioLINK, Diana Cunningham from the American Association of Health Sciences Libraries (AAHSL), Kathy Miller from NY3Rs, and Stephen Town and Toby Bainton from SCONUL. The advisory groups from each consortium were also very helpful. Finally, thanks to Claude Bonnelly at Université Laval and Jean-Pierre Cote at Université de Montréal for their help in translating the survey tool into French.

We would like to acknowledge the role of the Fund for the Improvement of Post-secondary Education (FIPSE), U.S. Department of Education, which provided grant funds of \$498,368 over a three-year period towards the LibQUAL+™ project. As we move towards the conclusion of that grant funding in August 2003 we would like to express our thanks for their continued support, which has enabled the project to grow into its present form.

Fred Heath
Texas A&M University

Duane Webster
Association of Research Libraries

1.2 LibQUAL+™: Defining and Promoting Library Service Quality

What is LibQUAL+™?

LibQUAL+™ is a suite of services that libraries use to solicit, track, understand, and act upon users' opinions of service quality. These services are offered to the library community by the Association of Research Libraries (ARL). The program's centerpiece is a rigorously tested Web-based survey bundled with training that helps libraries assess and improve library services, change organizational culture, and market the library. The goals of LibQUAL+™ are to:

- Foster a culture of excellence in providing library service
- Help libraries better understand user perceptions of library service quality
- Collect and interpret library user feedback systematically over time
- Provide libraries with comparable assessment information from peer institutions
- Identify best practices in library service
- Enhance library staff members' analytical skills for interpreting and acting on data

As of spring 2003, LibQUAL+™ has more than 400 participating institutions, including colleges and universities, community colleges, health sciences libraries, law libraries, and public libraries -- some through various consortia, others as independent participants. LibQUAL+™ has expanded internationally, with participating institutions in Canada, the U.K., and Europe. The growing LibQUAL+™ community of participants and its extensive dataset are rich resources for improving library services.

How will LibQUAL+™ benefit your library?

Library administrators have successfully used LibQUAL+™ survey data to identify best practices, analyze deficits, and effectively allocate resources. Benefits to participating institutions include:

- Institutional data and reports that enable you to assess whether your library services are meeting user expectations
- Aggregate data and reports that allow you to compare your library's performance with that of peer institutions
- Workshops designed specifically for LibQUAL+™ participants
- Access to an online library of LibQUAL+™ research articles
- Opportunity to become part of a community interested in developing excellence in library services

How does LibQUAL+™ benefit your library users?

LibQUAL+™ gives your library users a chance to tell you where your services need improvement so you can respond to and better manage their expectations. You can develop services that better meet your users' expectations by comparing your library's data with that of peer institutions and examining the practices of those libraries that are evaluated highly by their users.

How is the LibQUAL+™ survey conducted?

Conducting the LibQUAL+™ survey requires little technical expertise on your part. You invite your users to take the survey, distributing the URL for your library's Web form via e-mail. Respondents complete the survey form and their answers are sent to a central database. The data are analyzed and presented to you in reports describing your users' desired, perceived, and minimum expectations of service.

What are the origins of the LibQUAL+™ survey?

The LibQUAL+™ survey evolved from a conceptual model based on the SERVQUAL instrument, a popular tool for assessing service quality in the private sector. The Texas A&M University Libraries and other libraries used modified SERVQUAL instruments for several years; those applications revealed the need for a newly adapted tool that would serve the particular requirements of libraries. ARL, representing the largest research libraries in North America, partnered with Texas A&M University Libraries to develop, test, and refine LibQUAL+™. This effort was supported in part by a three-year grant from the U.S. Department of Education's Fund for the Improvement of Post-Secondary Education (FIPSE).

1.3 Web Access to Data

Data summaries from the 2003 iteration of the LibQUAL+™ survey will be available to project participants online via the LibQUAL+™ survey management site:

<http://www.libqual.org/Manage/Results/index.cfm>

1.4 Explanation of Charts and Tables

Radar Charts

Radar charts are commonly used throughout the following pages to display both aggregate results and results from individual institutions. A working knowledge of how to read and derive relevant information from these charts is essential. Basic information about radar charts is outlined below, and additional descriptive information is included throughout this notebook.

What is a radar chart?

Radar charts are useful when you want to look at several different factors all related to one item. Sometimes called "spider charts" or "polar charts", radar charts feature multiple axes or "spokes" along which data can be plotted. Variations in the data are shown by distance from the center of the chart. Lines connect the data points for each series, forming a spiral around the center.

In the case of the LibQUAL+™ survey results, each axis represents a different survey question. Questions are identified by a code at the end of each axis. The four dimensions measured by the survey are grouped together on the radar charts, and each dimension is labeled: Access to Information (AI), Affect of Service (AS), Library as Place (LP), and Personal Control (PC).

Radar charts are used in this notebook to present the item summaries (the results from the 25 core survey questions).

How to read a radar chart

Radar charts are an effective way to graphically show strengths and weaknesses by enabling you to observe symmetry or uniformity of data. Points close to the center indicate a low value, while points near the edge indicate a high value. When interpreting a radar chart, it is important to check each individual axis as well as the chart's overall shape in order to gain a complete understanding of its meaning. You can see how much data fluctuates by observing whether the spiral is smooth or has spikes of variability.

Respondents' minimum, desired, and perceived levels of service quality are plotted on each axis of your LibQUAL+™ radar charts. The resulting "gaps" between the three levels are shaded in blue, yellow, green, and red. Generally, a radar graph shaded blue and yellow indicates that users' perceptions of service fall within the "zone of tolerance"; the distance between minimum expectations and perceptions of service quality is shaded in blue, and the distance between their desired and perceived levels of service quality is shown in yellow. When users' perceptions fall outside the "zone of tolerance," the graph will include areas of red and green shading. If the distance between users' minimum expectations and perceptions of service delivery is represented in red, that indicates a negative service adequacy score. If the distance between the desired level of service and perceptions of service delivery is represented in green, that indicates a positive service superiority score.

Means

The mean of a collection of numbers is their arithmetic average, computed by adding them up and dividing by their total number.

In this notebook, means are provided for users' minimum, desired, and perceived levels of service quality for each item on the LibQUAL+™ survey. Means are also provided for the general satisfaction and information literacy

outcomes questions.

Standard Deviation

Standard deviation is a measure of the spread of data around their mean. The standard deviation (SD) depends on calculating the average distance of each score from the mean.

In this notebook, standard deviations are provided for every mean presented in the tables.

Service Adequacy

Service adequacy is calculated by subtracting the minimum score from the perceived score on any given question, for each user. Both means and standard deviations are provided for service adequacy scores on each item of the survey, as well as for each of the four dimensions of library service quality. In general, service adequacy is an indicator of the extent to which you are meeting the minimum expectations of your users. A negative service adequacy score indicates that your users' perceived level of service quality is below their minimum level of service quality and is printed in red.

Service Superiority

Service superiority is calculated by subtracting the desired score from the perceived score on any given question, for each user. Both means and standard deviations are provided for service superiority scores on each item of the survey, as well as for each of the four dimensions of library service quality. In general, service superiority is an indicator of the extent to which you are exceeding the desired expectations of your users. A positive service superiority score indicates that your users' perceived level of service quality is above their desired level of service quality and is printed in green.

Inclusion of Charts and Tables

Sections with charts and tables are omitted from the following pages when there are three or fewer individuals in a specific group.

In the consortium notebooks, institution type summaries are not shown if there is only one library for an institution type. Individual library notebooks are produced separately for each participant.

1.5 A Few Words about LibQUAL+™ 2003

Libraries today confront escalating pressure to demonstrate impact. As Cullen (2001) has noted,

Academic libraries are currently facing their greatest challenge since the explosion in tertiary education and academic publishing which began after World War II... [T]he emergence of the virtual university, supported by the virtual library, calls into question many of our basic assumptions about the role of the academic library, and the security of its future. Retaining and growing their customer base, and focusing more energy on meeting their customers' expectations is the only way for academic libraries to survive in this volatile environment. (pp. 662-663)

In this environment, "A measure of library quality based solely on collections has become obsolete" (Nitecki, 1996, p. 181).

These considerations have prompted the Association of Research Libraries (ARL) to sponsor a number of "New Measures" initiatives. The New Measures efforts represent a collective determination on the part of the ARL membership to augment the collection-count and fiscal input measures that comprise the ARL Index and ARL Statistics, to date the most consistently collected statistics for research libraries, with outcome measures, such as assessments of service quality and satisfaction.

One New Measures initiative is the LibQUAL+™ project (Cook, Heath & B. Thompson, 2002, 2003; Heath, Cook, Kyriallidou & Thompson, 2002; Thompson, Cook & Heath, 2003; Thompson, Cook & Thompson, 2002). The book by Cook, Heath and Thompson (in press) details much of the related history and research.

Within a service-quality assessment model, "only customers judge quality; all other judgments are **essentially irrelevant**" (Zeithaml, Parasuraman, Berry, 1990, p. 16). Consequently, the selection of items employed with LibQUAL+™ has been grounded in the *users' perspective* as revealed in a series of qualitative studies (Cook, 2002a; Cook & Heath, 2001).

LibQUAL+™ is a "way of listening" to users called a *total market survey*. As Berry (1995) explained,

When well designed and executed, total market surveys provide a range of information unmatched by any other method... A critical facet of total market surveys (and the reason for using the word 'total') is the measurement of competitors' service quality. This [also] requires using non-customers in the sample to rate the service of their suppliers. (p. 37)

Although (a) measuring perceptions of both users and non-users and (b) collecting perceptions data as regards peer institutions can provide important insights, LibQUAL+™ is only one (i.e., a total market survey) of 11 "ways of listening" (Berry, 1995, pp. 32-61).

Score Scaling

"Perceived" scores on the 25 LibQUAL+™ core items, the four subscales, and the total score, are all scaled 1 to 9, with 9 being the most favorable. Both the gap scores ("Adequacy" = "Perceived" - "Minimum"; "Superiority" = "Perceived" - "Desired") are scaled such that higher scores are more favorable. Thus, an *adequacy* gap score of +1.2 on an item, subscale, or total score is better than an adequacy gap score of +1.0. A *superiority* gap score of -0.5 on an item, subscale, or total score is better than a superiority gap score of -1.0.

Using LibQUAL+™ Data

In some cases LibQUAL+™ data may confirm prior expectations and library staff will readily formulate action plans to remedy perceived deficiencies. But in many cases library decision-makers will seek additional information to corroborate interpretations or to better understand the dynamics underlying user perceptions.

For example, once an interpretation is formulated, library staff might review recent submissions of users to suggestion boxes to evaluate whether LibQUAL+™ data are consistent with interpretations, and the suggestion box data perhaps also provide user suggestions for remedies. User focus groups also provide a powerful way to explore problems and potential solutions.

Indeed, the open-ended comments gathered as part of LibQUAL+™ are themselves useful in fleshing out insights into perceived library service quality. Respondents often use the comments box on the survey to make constructive suggestions on specific ways to address their concerns. Qualitative analysis of these comments can be very fruitful. In short, LibQUAL+™ is not 25 items. LibQUAL+™ is 25 items plus a comments box!

Cook (2002b) provided case study reports of how staff at various libraries have employed data from prior renditions of LibQUAL+™. Heath, Askew and Kyrillidou (in press) edited a special issue of the Journal of Library Administration reporting additional case studies on use of LibQUAL+™ data in aid of improving library service quality.

2003 Data Screening

The 25 LibQUAL+™ core quantitative items measure perceptions of total service quality, as well as four sub-dimensions of perceived library quality: (a) *Service Affect* (9 items, such as "willingness to help users"); (b) *Library as Place* (5 items, such as "a getaway for study, learning, or research"); (c) *Personal Control* (6 items, such as "a library Web site enabling me to locate information on my own"); and (d) *Information Access* (5 items, such as "print and/or electronic journal collections I require for my work" and "convenient service hours").

However, as happens in any survey, in 2003 some users provided incomplete data, or inconsistent data, or both. In compiling the summary data reported here, several criteria were used to determine which respondents to omit from these analyses.

1. Complete Data. The Web software that presents the 25 core items monitors whether a given user has completed all items. On each of these items, in order to proceed to the next survey page, users must provide a rating of (a) minimally-acceptable service, (b) desired service, and (c) perceived service or rate the item "not applicable" ("NA"). If these conditions are not met, when the user attempts to leave the Web page presenting the 25 core items, the software shows the user where missing data were located, and requests complete data. The user cannot exit the page containing the 25 items (except by abandoning the survey) until all items are completed. *Only records with complete data on the 25 items were retained in summary statistics.*

2. Excessive "NA" Responses. Because some institutions provided access to a lottery drawing for an incentive (e.g., a Palm PDA) for completing the survey, some users might have selected "NA" choices for all or most of the items rather than reporting their actual perceptions. Or some users may have views on such a narrow range of quality issues that their data are not very informative. *In this survey we made the judgment that records containing*

more than 11 "NA" responses should be deleted.

3. Excessive Inconsistent Responses. On LibQUAL+™ user perceptions can be interpreted by locating "perceived" results within the "zone of tolerance" defined by data from the "minimum" and the "desired" ratings. For example, a mean "perceived" rating on the 1-to-9 ("9" is highest) scale of 7.5 might be very good if the mean "desired" rating is 6.0. But a 7.5 perception score is less satisfactory if the mean "desired" rating is 8.6, or if the mean "minimum" rating is 7.7.

One appealing feature of such a "gap measurement model" is that the rating format provides a check for inconsistencies in the response data (Thompson, Cook & Heath, 2000). Logically, on a given item the "minimum" rating should not be higher than the "desired" rating on the same item. For each user a count of such inconsistencies, ranging from "0" to "25" was made. *Records containing more than 9 logical inconsistencies were deleted.*

LibQUAL+™ Norms

An important way to interpret LibQUAL+™ data is by examining the zones of tolerance for items, the four subscale scores, and the total scores. However, the collection of such a huge number of user perceptions has afforded us with the unique opportunity to create "norms" tables that provide yet another perspective on results.

Norms tell us how scores "stack up" within a particular user group. For example, on the 1-to-9 ("9" is highest) scale, users might provide a mean "perceived" rating of 6.5 on an item, "the printed library materials I need for my work." The same users might provide a mean rating on "minimum" for this item of 7.0, and a mean service-adequacy "gap score" (i.e., "perceived" minus "minimum") of -0.5.

The zone-of-tolerance perspective suggests that this library is not doing well on this item, because "perceived" falls below "minimally acceptable." This is important to know. But there is also a second way (i.e., normatively) to interpret the data. Both perspectives can be valuable.

A total market survey administered to more than 100,000 users, as was LibQUAL+™ in 2003, affords the opportunity to ask normative questions such as, "How does a mean 'perceived' score of 6.5 stack up among all individual users who completed the survey?", or "How does a mean service-adequacy gap score of -0.5 stack up among the gap scores of all institutions participating in the survey?"

If 70% of individual users generated "perceived" ratings lower than 6.5, 6.5 might not be so bad. And if 90% of institutions had service-adequacy gap scores lower than -0.5 (e.g., -0.7, -1.1), a mean gap score of -0.5 might actually be quite good. Users simply may have quite high expectations in this area. They may also communicate their dissatisfaction by both (a) rating "perceived" lower and (b) "minimum" higher.

This does not mean that a service-adequacy gap score of -0.5 is necessarily a cause for celebration. But a service-adequacy gap score of -0.5 on an item on which 90% of institutions have a lower gap score is a different gap score than the same -0.5 for a different item in which 90% of institutions have a higher service-adequacy gap score.

Only norms give us insight into this comparative perspective. And a local user-satisfaction survey (as against a total market survey) can never give us this insight.

Common Misconception Regarding Norms. An unfortunate and incorrect misconception is that norms make

value statements. Norms do not make value statements! Norms make fact statements. If you are a forest ranger, and you make \$25,000 a year, a norms table might inform you of the fact statement that you make less money than 85% of the adults in the United States.

But if you love the outdoors, you do not care very much about money, and you are very service-oriented, this fact statement might not be relevant to you. Or, in the context of your values, you might interpret this fact as being quite satisfactory.

LibQUAL+™ 2003 Norms Tables. Of course, the fact statements made by the LibQUAL+™ norms are only valuable if you care about the dimensions being evaluated by the measure. More background on LibQUAL+™ norms is provided by Cook and Thompson (2001) and Cook, Heath and B. Thompson (2002). LibQUAL+™ norms for 2003 are available on the Web at URL:

<<http://www.coe.tamu.edu/~bthompson/libq2003.htm>>

Response Rates

At the American Library Association mid-winter meeting in San Antonio in January, 2000, participants were cautioned that response rates on the final LibQUAL+™ survey would probably range from 25% to 33%. Higher response rates can be realized (a) with shorter surveys that (b) are directly action-oriented (Cook, Heath & R.L. Thompson, 2000). For example, a very high response rate could be realized by a library director administering the following one-item survey to users:

Instructions. Please tell us what time to close the library every day. In the future **we will close at whatever time receives the most votes.**

Should we close the library at?

(A) 10 p.m. (B) 11 p.m. (C) midnight (D) 2 p.m.

Lower response rates will be expected for total market surveys measuring general perceptions of users across institutions, and when an intentional effort is made to solicit perceptions of both users and non-users. Two considerations should govern the evaluation of LibQUAL+™ response rates.

Minimum Response Rates. Response rates are computed by dividing the number of completed surveys at an institution by the number of persons asked to complete the survey. However, we do not know the actual response rates on LibQUAL+™, because we do not know the correct denominators for these calculations.

For example, given inadequacy in records at schools, we are not sure how many e-mail addresses for users are accurate. And we do not know how many messages to invite participation were actually opened. In other words, what we know for LibQUAL+™ is the "lower-bound estimate" of response rates.

For example, if 200 out of 800 solicitations result in completed surveys, we know that the response rate is at least 25%. But because we are not sure whether 800 e-mail addresses were correct or that 800 e-mail messages were opened, we are not sure that 800 is the correct denominator. The response rate involving only correct e-mail addresses might be 35% or 45%. We don't know the exact response rate.

Representativeness Versus Response Rate. If 100% of the 800 people we randomly selected to complete our survey did so, then we can be assured that the results are representative of all users. But if only 25% of the 800 users complete the survey, the representativeness of the results is not assured. Nor is unrepresentativeness assured.

Representativeness is actually a matter of degree. And several institutions each with 25% response rates may have data with different degrees of representativeness.

We can never be sure about how representative our data are as long as not everyone completes the survey. But we can at least address this concern by comparing the demographic profiles of survey completers with the population (Thompson, 2000). At which university below would one feel more confident that LibQUAL+™ results were reasonably representative?

Alpha University

Completers (n=200 / 800)

Gender

Students 53% female

Faculty 45% female

Disciplines

Liberal Arts 40%

Science 15%

Other 45%

Population (N=16,000)

Gender

Students 51% female

Faculty 41% female

Disciplines

Liberal Arts 35%

Science 20%

Other 45%

Omega University

Completers (n=200 / 800)

Gender

Students 35% female

Faculty 65% female

Disciplines

Liberal Arts 40%

Science 20%

Other 40%

Population (N=23,000)

Gender

Students 59% female

Faculty 43% female

Disciplines

Liberal Arts 15%

Science 35%

Other 50%

The persuasiveness of such analyses is greater as the number of variables used in the comparisons is greater. The LibQUAL+™ software has been expanded to automate these comparisons and to output side-by-side graphs and tables comparing sample and population profiles for given institutions. Show these to people who question result representativeness.

However, one caution is in order regarding percentages. When total n is small for an institution, or within a particular subgroup, huge changes in percentages can result from very small shifts in numbers. For 2004 we may develop some summary indices to overcome these dynamics and facilitate evaluations of these representativeness comparisons.

ARL Service Quality Assessment Academy

LibQUAL+™ is an important tool in the New Measures toolbox that librarians can use to improve service quality. But, even more fundamentally, the LibQUAL+™ initiative is more than a single tool. LibQUAL+™ is an effort to create a culture of data-driven service quality assessment and service quality improvement within libraries.

Such a culture must be informed by more than one tool, and by more than only one of the 11 ways of listening to

users. To facilitate a culture of service quality assessment, and to facilitate more informed usage of LibQUAL+™ data, the Association of Research Libraries has created the annual *ARL Service Quality Assessment Academy*. For more information about the Academy, see the LibQUAL+™ events page at

<http://www.libqual.org/Events/index.cfm>.

The intensive, five-day Academy teaches both qualitative and quantitative skills that library staff can use to evaluate and generate service-quality assessment information. The second cohort of Academy participants graduated in May, 2003. The Academy is one more resource for library staff who would like to develop enhanced service-quality assessment skills.

References

- Berry, L.L. (1995). On great service: A framework for action. New York: The Free Press.
- Cook, C.C. (2002a). A mixed-methods approach to the identification and measurement of academic library service quality constructs: LibQUAL+™. (Doctoral dissertation, Texas A&M University, 2001). Dissertation Abstracts International, 62, 2295A. (University Microfilms No. AAT3020024)
- Cook, C. (Guest Ed.). (2002b). Library decision-makers speak to their uses of their LibQUAL+™ data: Some LibQUAL+™ case studies. Performance Measurement and Metrics, 3.
- Cook, C., & Heath, F. (2001). Users' perceptions of library service quality: A LibQUAL+™ qualitative study. Library Trends, 49, 548-584.
- Cook, C., Heath, F. & Thompson, B. (2002). Score norms for improving library service quality: A LibQUAL+™ study. portal: Libraries and the Academy, 2, 13-26.
- Cook, C., Heath, F. & Thompson, B. (2003). "Zones of tolerance" in perceptions of library service quality: A LibQUAL+™ study. portal: Libraries and the Academy, 3, 113-123.
- Cook, C., Heath, F. & Thompson, B. (in press). Improving service quality in libraries: LibQUAL+™. Washington, DC: Association of Research Libraries. (International Standard Book Number 0-918006-96-1) [**out in Summer/Fall, 2003**]
- Cook, C., Heath, F., & Thompson, R.L. (2000). A meta-analysis of response rates in Web- or Internet-based surveys. Educational and Psychological Measurement, 60, 821-836.
- Cook, C., & Thompson, B. (2001). Psychometric properties of scores from the Web-based LibQUAL+™ study of perceptions of library service quality. Library Trends, 49, 585-604.
- Cullen, R. (2001). Perspectives on user satisfaction surveys. Library Trends, 49, 662-686.
- Heath, F., Askew, C. A., & Kyrillidou, M. (Guest Eds.). (in press). From data to action: Libraries report on their LibQUAL+™ findings. Journal of Library Administration.
- Heath, F., Cook, C., Kyrillidou, M., & Thompson, B. (2002). ARL Index and other validity correlates of LibQUAL+™ scores. portal: Libraries and the Academy, 2, 27-42.
- Nitecki, D.A. (1996). Changing the concept and measure of service quality in academic libraries. The Journal of Academic Librarianship, 22, 181-190.
- Thompson, B. (2000, October). Representativeness versus response rate: It ain't the response rate!. Paper presented at the Association of Research Libraries (ARL) Measuring Service Quality Symposium on the New Culture of Assessment: Measuring Service Quality, Washington, DC.
- Thompson, B., Cook, C., & Heath, F. (2000). The LibQUAL+™ gap measurement model: The bad, the ugly, and the good of gap measurement. Performance Measurement and Metrics, 1, 165-178.
- Thompson, B., Cook, C., & Heath, F. (2003). Structure of perceptions of service quality in libraries: A

- LibQUAL+™ study. Structural Equation Modeling, 10, 456-464.
- Thompson, B., Cook, C., & Thompson, R.L. (2002). Reliability and structure of LibQUAL+™ scores: Measuring perceived library service quality. portal: Libraries and the Academy, 2, 3-12.
- Zeithaml, V.A., Parasuraman, A., Berry, L.L. (1990). Delivering quality service: Balancing customer perceptions and expectations. New York: Free Press.

2 Demographic Summary for Drake University

2.1 Respondents by User Group

User Group	Respondent n	Respondent %
Undergraduate		
First year	66	22.22%
Second year	48	16.16%
Third year	35	11.78%
Fourth year	37	12.46%
Fifth year and above	5	1.68%
Non-degree	1	0.34%
Sub Total:	192	64.65%
Graduate		
Masters	8	2.69%
Doctoral	14	4.71%
Non-degree or Undecided	1	0.34%
Sub Total:	23	7.74%
Faculty		
Adjunct Faculty	3	1.01%
Assistant Professor	10	3.37%
Associate Professor	16	5.39%
Lecturer	0	0.00%
Professor	12	4.04%
Other Academic Status	2	0.67%
Sub Total:	43	14.48%
Library Staff		
Administrator	3	1.01%
Manager, Head of Unit	2	0.67%
Public Services	7	2.36%
Systems	1	0.34%
Technical Services	4	1.35%
Other	2	0.67%
Sub Total:	19	6.40%
Staff		
Research Staff	0	0.00%
Other staff positions	20	6.73%
Sub Total:	20	6.73%
Total:	297	100.00%

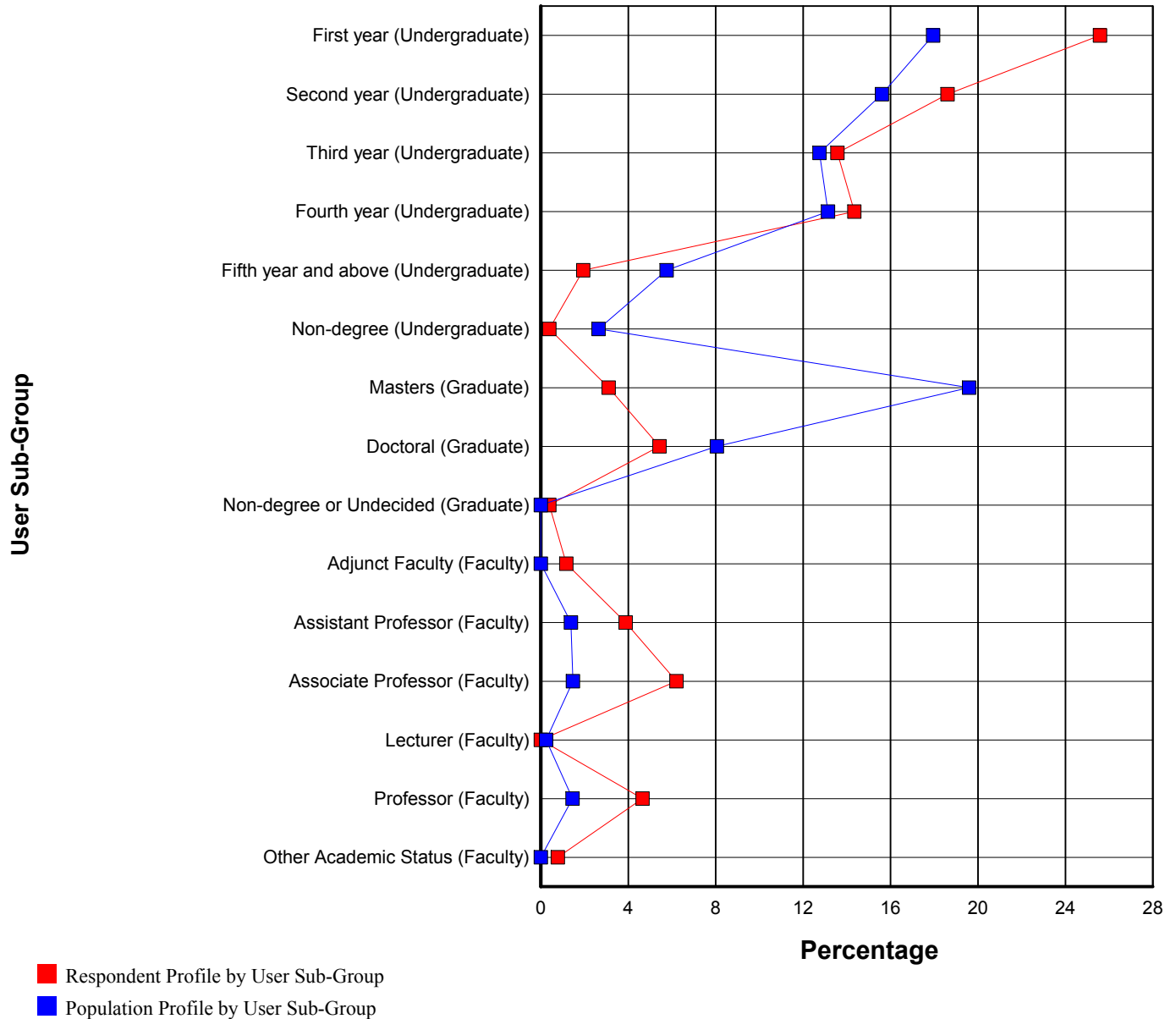
Language: American English
 Institution Type: College or University
 Consortium: None
 User Group: All

2.2 Population and Respondent Profiles by User Sub-Group

The chart and table below show a breakdown of survey respondents by sub-group (e.g. First year, Masters, Professor), based on user responses to the demographic questions at the end of the survey instrument and the demographic data provided by institutions through the online Demographics Questionnaire*.

The chart maps percentage of respondents for each user subgroup in red. Population percentages for each user subgroup are mapped in blue. The table shows the number and percentage for each user sub-group for the general population (N) and for survey respondents (n).

**Note: Participating institutions were not required to complete the Demographics Questionnaire. When population data is missing or incomplete, it is because this data was not provided to ARL.*



Language: American English
 Institution Type: College or University
 Consortium: None
 User Group: All (Excludes Staff & Library Staff)

User Sub-Group	Population N	Population %	Respondents n	Respondents %	%N - %n
First year (Undergraduate)	967	17.94%	66	25.58%	-7.64%
Second year (Undergraduate)	841	15.61%	48	18.60%	-3.00%
Third year (Undergraduate)	687	12.75%	35	13.57%	-0.82%
Fourth year (Undergraduate)	708	13.14%	37	14.34%	-1.20%
Fifth year and above (Undergraduate)	310	5.75%	5	1.94%	3.81%
Non-degree (Undergraduate)	142	2.63%	1	0.39%	2.25%
Masters (Graduate)	1,056	19.60%	8	3.10%	16.49%
Doctoral (Graduate)	434	8.05%	14	5.43%	2.63%
Non-degree or Undecided (Graduate)	0	0.00%	1	0.39%	-0.39%
Adjunct Faculty (Faculty)	0	0.00%	3	1.16%	-1.16%
Assistant Professor (Faculty)	74	1.37%	10	3.88%	-2.50%
Associate Professor (Faculty)	79	1.47%	16	6.20%	-4.74%
Lecturer (Faculty)	13	0.24%	0	0.00%	0.24%
Professor (Faculty)	78	1.45%	12	4.65%	-3.20%
Other Academic Status (Faculty)	0	0.00%	2	0.78%	-0.78%
Total:	5,389	100.00%	258	100.00%	0.00%

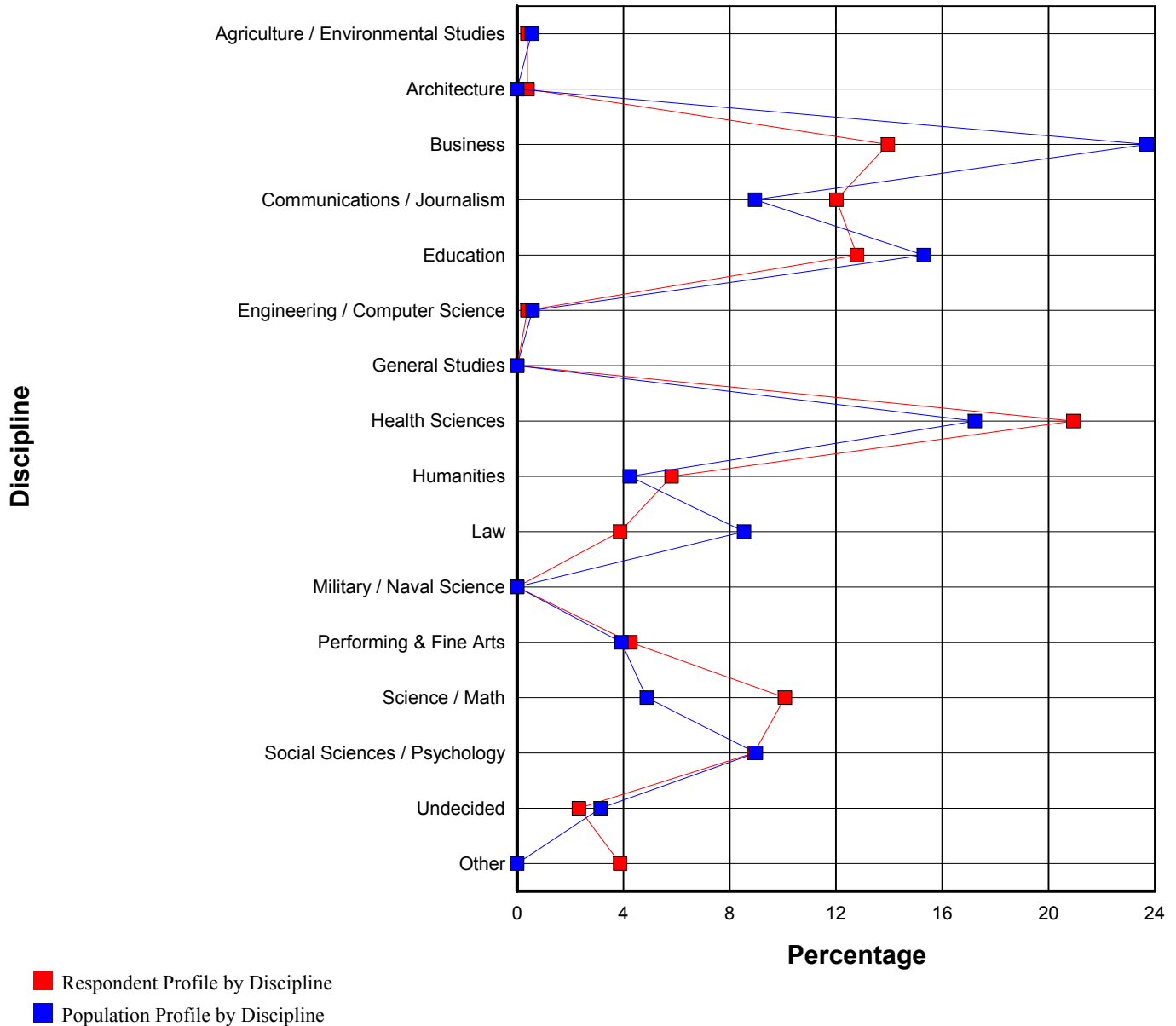
Language: American English
Institution Type: College or University
Consortium: None
User Group: All (Excludes Staff & Library Staff)

2.3 Population and Respondent Profiles by Discipline

The chart and table below show a breakdown of survey respondents by discipline, based on user responses to the demographic questions at the end of the survey instrument and the demographic data provided by institutions through the online Demographics Questionnaire*.

The chart maps percentage of respondents for each discipline in red. Population percentages for each discipline are mapped in blue. The table shows the number and percentage for each discipline, for the general population (N) and for survey respondents (n).

**Note: Participating institutions were not required to complete the Demographics Questionnaire. When population data is missing or incomplete, it is because this data was not provided to ARL.*



Language: American English
 Institution Type: College or University
 Consortium: None
 User Group: All (Excludes Staff & Library Staff)

Discipline	Population N	Population %	Respondents n	Respondents %	%N - %n
Agriculture / Environmental Studies	29	0.54%	1	0.39%	0.15%
Architecture	0	0.00%	1	0.39%	-0.39%
Business	1,268	23.69%	36	13.95%	9.74%
Communications / Journalism	479	8.95%	31	12.02%	-3.07%
Education	819	15.30%	33	12.79%	2.51%
Engineering / Computer Science	31	0.58%	1	0.39%	0.19%
General Studies	0	0.00%	0	0.00%	0.00%
Health Sciences	922	17.23%	54	20.93%	-3.70%
Humanities	227	4.24%	15	5.81%	-1.57%
Law	457	8.54%	10	3.88%	4.66%
Military / Naval Science	0	0.00%	0	0.00%	0.00%
Performing & Fine Arts	210	3.92%	11	4.26%	-0.34%
Science / Math	261	4.88%	26	10.08%	-5.20%
Social Sciences / Psychology	481	8.99%	23	8.91%	0.07%
Undecided	168	3.14%	6	2.33%	0.81%
Other	0	0.00%	10	3.88%	-3.88%
Total:	5,352	100.00%	258	100.00%	0.00%

Language: American English
Institution Type: College or University
Consortium: None
User Group: All (Excludes Staff & Library Staff)

2.4 Respondent Profile by Age

This table shows a breakdown of survey respondents by age; both the number of respondents (n) and the percentage of the total number of respondents represented by each age group are displayed. Ages are grouped into six categories: Under 18, 18-22, 23-30, 31-45, 46-65, and Over 65.

Age	Respondents n	Respondents %
Under 18	2	0.72%
18 - 22	181	65.11%
23 - 30	21	7.55%
31 - 45	30	10.79%
46 - 65	43	15.47%
Over 65	1	0.36%
Total:	278	100.00%

2.5 Population and Respondent Profiles by Sex

The table below shows a breakdown of survey respondents by sex, based on user responses to the demographic questions at the end of the survey instrument and the demographic data provided by institutions through the online Demographics Questionnaire*. The number and percentage for each sex are given for the general population and for survey respondents.

*Note: Participating institutions were not required to complete the Demographics Questionnaire. When population data is missing or incomplete, it is because this data was not provided to ARL.

Sex	Population N	Population %	Respondents n	Respondents %
Male	2,243	42.11%	94	33.81%
Female	3,083	57.89%	184	66.19%
Total:	5,326	100.00%	278	100.00%

Language: American English

Institution Type: College or University

Consortium: None

User Group: All (Excludes Library Staff)

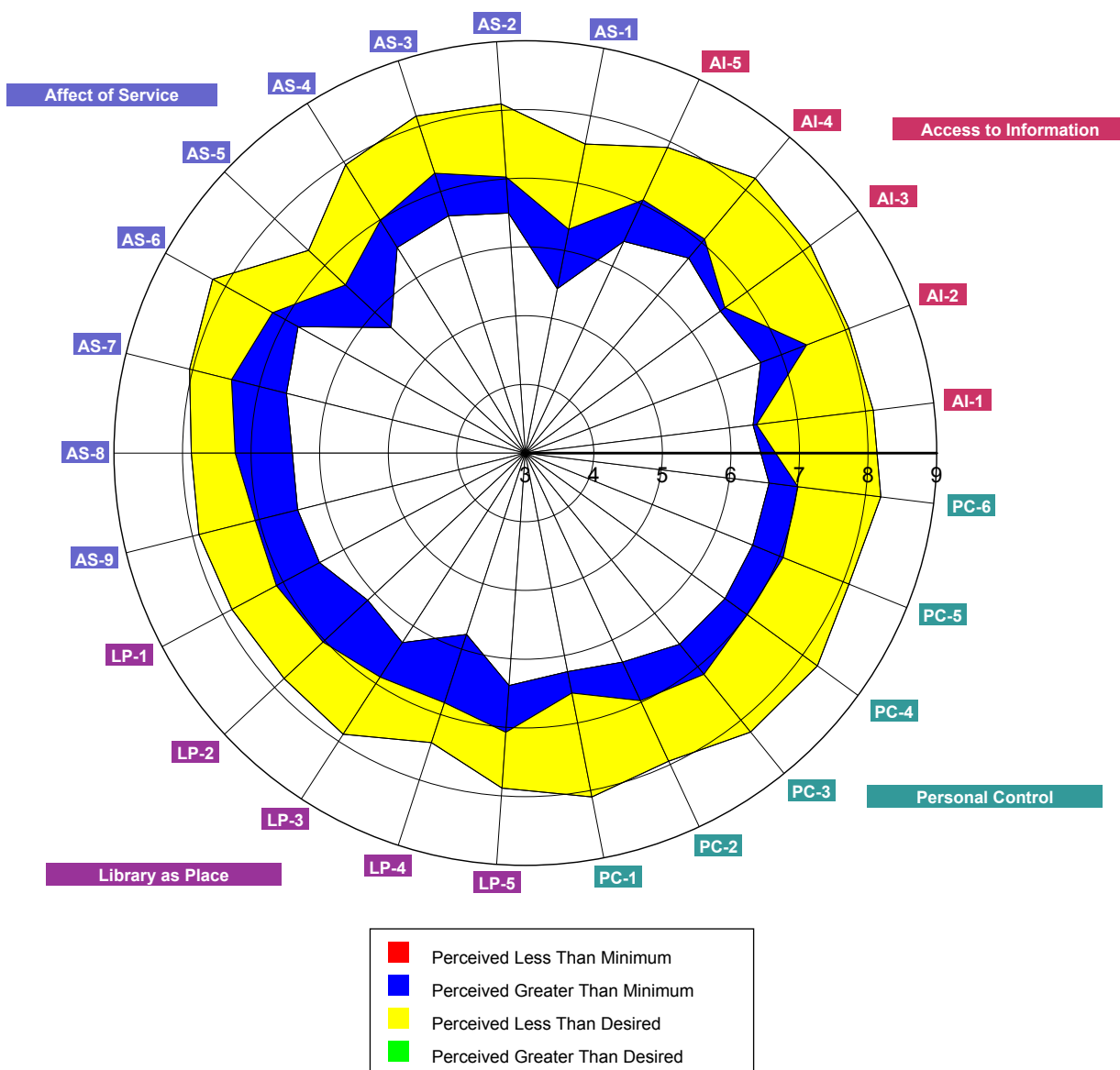
3 Survey Item Summary for Drake University

3.1 Core Questions Summary

This radar chart shows aggregate results for the 25 core survey questions. Each axis represents one question (a code to identify each question is displayed at the outer point of each axis). While questions for each dimension of library service quality are scattered randomly throughout the survey, here they are grouped in quadrants: Affect of Service, Access to Information, Library as Place, and Personal Control.

On each axis, respondents' minimum, desired, and perceived levels of service quality are plotted, and the resulting "gaps" between the three levels (representing service adequacy or service superiority) are shaded in blue, yellow, green, and red.

The two following tables show mean scores and standard deviations for each question, where n is the number of respondents for each particular question. (For a more detailed explanation of the headings, see the Introduction to this notebook.)



Language: American English
 Institution Type: College or University
 Consortium: None
 User Group: All (Excludes Library Staff)

ID	Question Text	Minimum Mean	Desired Mean	Perceived Mean	Adequacy Mean	Superiority Mean	n
Access to Information							
AI-1	Print and/or electronic journal collections I require for my work	6.35	8.11	6.40	0.05	-1.71	255
AI-2	Convenient service hours	6.68	8.06	7.40	0.72	-0.66	272
AI-3	The printed library materials I need for my work	6.52	8.14	6.60	0.08	-1.54	257
AI-4	The electronic information resources I need	6.71	8.22	7.07	0.36	-1.15	262
AI-5	Timely document delivery/interlibrary loan	6.40	7.91	7.07	0.67	-0.84	165
Affect of Service							
AS-1	Employees who instill confidence in users	5.44	7.58	6.32	0.88	-1.26	258
AS-2	Readiness to respond to users' questions	6.50	8.10	7.03	0.52	-1.07	263
AS-3	Willingness to help users	6.63	8.16	7.28	0.65	-0.87	268
AS-4	Dependability in handling users' service problems	6.53	7.95	6.99	0.46	-0.95	242
AS-5	Giving users individual attention	5.68	7.32	6.59	0.91	-0.74	253
AS-6	Employees who have the knowledge to answer user questions	6.79	8.22	7.22	0.42	-1.00	259
AS-7	Employees who are consistently courteous	6.59	8.05	7.42	0.83	-0.63	266
AS-8	Employees who deal with users in a caring fashion	6.40	7.87	7.23	0.84	-0.64	261
AS-9	Employees who understand the needs of their users	6.43	7.91	7.06	0.64	-0.85	247
Library as Place							
LP-1	Quiet space for individual activities	6.40	7.85	7.11	0.71	-0.73	267
LP-2	A comfortable and inviting location	6.14	7.81	7.04	0.89	-0.78	277
LP-3	Library space that inspires study and learning	6.29	7.88	6.89	0.60	-0.99	267
LP-4	Community space for group learning and group study	5.78	7.43	6.82	1.05	-0.61	241
LP-5	A getaway for study, learning, or research	6.39	7.89	7.07	0.68	-0.81	259
Personal Control							
PC-1	Easy-to-use access tools that allow me to find things on my own	6.24	8.10	6.56	0.32	-1.54	277
PC-2	Convenient access to library collections	6.36	7.95	6.98	0.62	-0.97	271
PC-3	A library Web site enabling me to locate information on my own	6.58	8.22	7.14	0.56	-1.08	272
PC-4	Modern equipment that lets me easily access needed information	6.60	8.27	7.00	0.40	-1.27	269
PC-5	Making information easily accessible for independent use	6.58	8.09	7.06	0.48	-1.03	271
PC-6	Making electronic resources accessible from my home or office	6.59	8.22	7.01	0.42	-1.22	258
Overall:		6.38	7.98	6.98	0.60	-0.99	278

Language: American English

Institution Type: College or University

Consortium: None

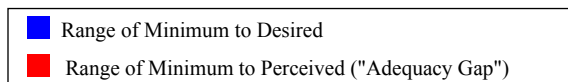
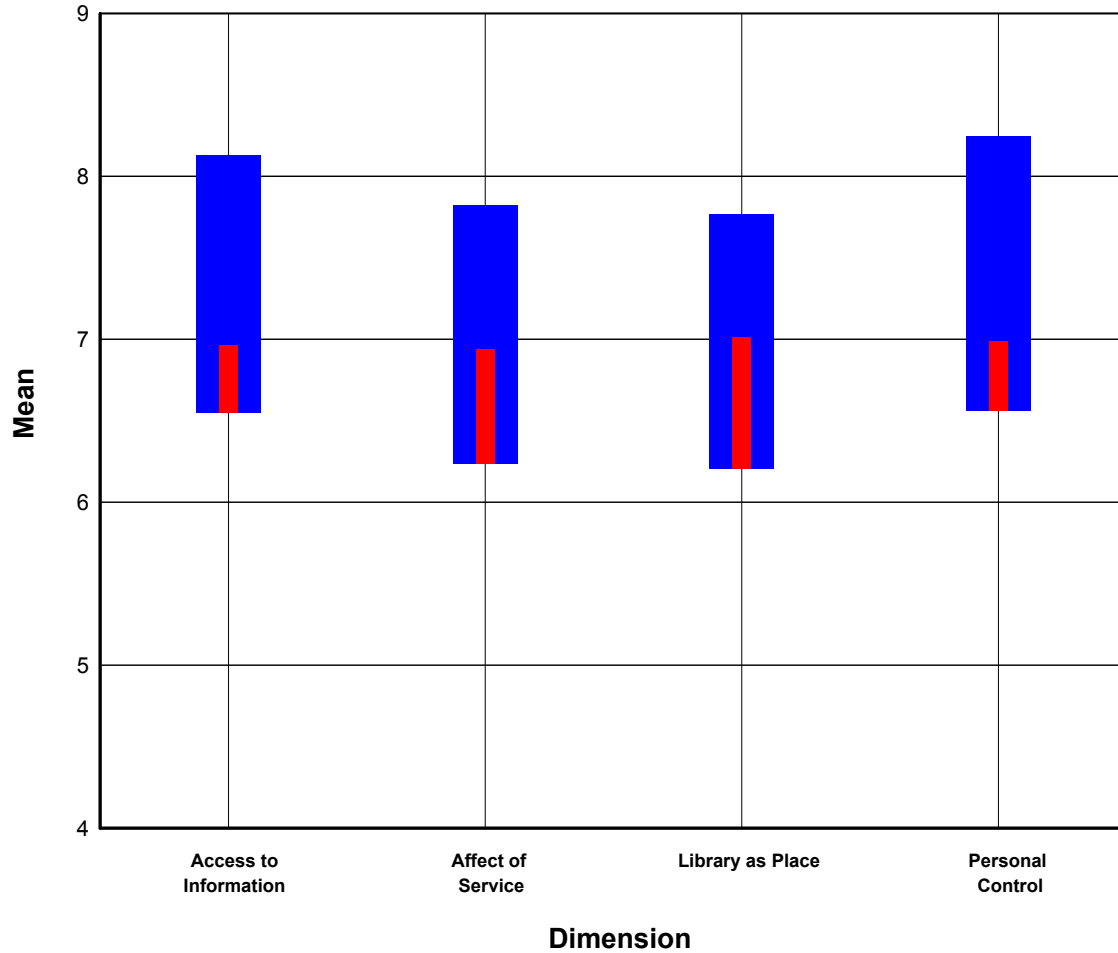
User Group: All (Excludes Library Staff)

ID	Question Text	Minimum SD	Desired SD	Perceived SD	Adequacy SD	Superiority SD	n
Access to Information							
AI-1	Print and/or electronic journal collections I require for my work	1.66	1.29	1.90	2.39	2.11	255
AI-2	Convenient service hours	1.61	1.16	1.52	1.81	1.66	272
AI-3	The printed library materials I need for my work	1.63	1.09	1.67	2.17	1.98	257
AI-4	The electronic information resources I need	1.47	1.14	1.53	1.94	1.71	262
AI-5	Timely document delivery/interlibrary loan	1.71	1.35	1.59	2.02	1.68	165
Affect of Service							
AS-1	Employees who instill confidence in users	1.67	1.45	1.73	1.82	1.67	258
AS-2	Readiness to respond to users' questions	1.62	1.18	1.67	1.76	1.64	263
AS-3	Willingness to help users	1.57	1.14	1.49	1.73	1.50	268
AS-4	Dependability in handling users' service problems	1.58	1.18	1.45	1.69	1.48	242
AS-5	Giving users individual attention	1.72	1.55	1.67	1.79	1.68	253
AS-6	Employees who have the knowledge to answer user questions	1.48	1.13	1.58	1.71	1.57	259
AS-7	Employees who are consistently courteous	1.75	1.19	1.52	1.80	1.45	266
AS-8	Employees who deal with users in a caring fashion	1.63	1.31	1.41	1.65	1.38	261
AS-9	Employees who understand the needs of their users	1.63	1.32	1.46	1.75	1.45	247
Library as Place							
LP-1	Quiet space for individual activities	2.08	1.71	1.75	2.27	2.18	267
LP-2	A comfortable and inviting location	1.74	1.34	1.63	2.01	1.81	277
LP-3	Library space that inspires study and learning	1.78	1.43	1.66	2.08	1.93	267
LP-4	Community space for group learning and group study	1.83	1.72	1.75	2.02	1.85	241
LP-5	A getaway for study, learning, or research	1.80	1.51	1.55	1.79	1.65	259
Personal Control							
PC-1	Easy-to-use access tools that allow me to find things on my own	1.64	1.29	1.73	2.05	1.88	277
PC-2	Convenient access to library collections	1.54	1.15	1.42	1.78	1.55	271
PC-3	A library Web site enabling me to locate information on my own	1.61	1.08	1.53	1.92	1.63	272
PC-4	Modern equipment that lets me easily access needed information	1.48	1.00	1.39	1.79	1.58	269
PC-5	Making information easily accessible for independent use	1.48	1.10	1.28	1.63	1.46	271
PC-6	Making electronic resources accessible from my home or office	1.61	1.14	1.64	2.21	1.82	258
Overall:		1.22	0.85	1.04	1.28	1.05	278

Language: American English
Institution Type: College or University
Consortium: None
User Group: All (Excludes Library Staff)

3.2 Core Question Dimensions Summary

On the chart below, scores for each dimension of library service quality have been plotted graphically. The blue bars represent the range of minimum to desired scores for each dimension. The interior red bars represent the range of minimum to perceived scores (the service adequacy gap) for each dimension of library service quality.



Language: American English
 Institution Type: College or University
 Consortium: None
 User Group: All (Excludes Library Staff)

The following table displays mean scores for each dimension of library service quality measured by the LibQUAL+™ survey, where n is the number of respondents for each particular dimension. (For a more detailed explanation of the headings, see the Introduction to this notebook.) A complete listing of the survey questions and their dimensions can be found in Appendix B.

Dimension	Minimum Mean	Desired Mean	Perceived Mean	Adequacy Mean	Superiority Mean	n
Access to Information	6.55	8.13	6.96	0.42	-1.21	278
Affect of Service	6.24	7.82	6.94	0.69	-0.87	278
Library as Place	6.21	7.77	7.01	0.80	-0.76	278
Personal Control	6.56	8.24	6.99	0.49	-1.24	278
Overall:	6.38	7.98	6.98	0.60	-0.99	278

The following table displays standard deviation for each dimension of library service quality measured by the LibQUAL+™ survey, where n is the number of respondents for each particular dimension. (For a more detailed explanation of the headings, see the Introduction to this notebook.) A complete listing of the survey questions and their dimensions can be found in Appendix B.

Dimension	Minimum SD	Desired SD	Perceived SD	Adequacy SD	Superiority SD	n
Access to Information	1.30	0.93	1.26	1.64	1.41	278
Affect of Service	1.54	1.39	1.54	1.41	1.23	278
Library as Place	1.55	1.35	1.42	1.61	1.53	278
Personal Control	1.30	0.90	1.20	1.56	1.30	278
Overall:	1.22	0.85	1.04	1.28	1.05	278

Language: American English
 Institution Type: College or University
 Consortium: None
 User Group: All (Excludes Library Staff)

3.3 General Satisfaction Questions Summary

This table displays the mean score and standard deviation for each of the general satisfaction questions: Satisfaction with Treatment, Satisfaction with Support, and Satisfaction with Overall Quality of Service, where n is the number of respondents for each particular question. These scores are calculated from responses to the general satisfaction questions on the LibQUAL+™ survey, in which respondents rated their levels of general satisfaction on a scale from 1-9.

Satisfaction Question	Mean	SD	n
In general, I am satisfied with the way in which I am treated at the library.	7.35	1.59	278
In general, I am satisfied with library support for my learning, research, and/or teaching needs.	6.62	1.84	278
How would you rate the overall quality of the service provided by the library?	6.90	1.40	278

3.4 Information Literacy Outcomes Questions Summary

This table displays the mean score and standard deviation for each of the information literacy outcomes questions, where n is the number of respondents for each particular question. These scores are calculated from responses to the information literacy outcomes questions on the LibQUAL+™ survey, in which respondents rated their levels of general satisfaction on a scale from 1-9 with 1 being "strongly disagree" and 9 representing "strongly agree".

Information Literacy Outcomes Questions	Mean	SD	n
The library helps me stay abreast of developments in my field(s) of interest.	5.48	1.86	278
The library aids my advancement in my academic discipline.	6.02	1.81	278
The library enables me to be more efficient in my academic pursuits.	6.38	1.73	278
The library helps me distinguish between trustworthy and untrustworthy information.	5.44	1.88	278
The library provides me with the information skills I need in my work or study.	5.83	1.93	278

Language: American English

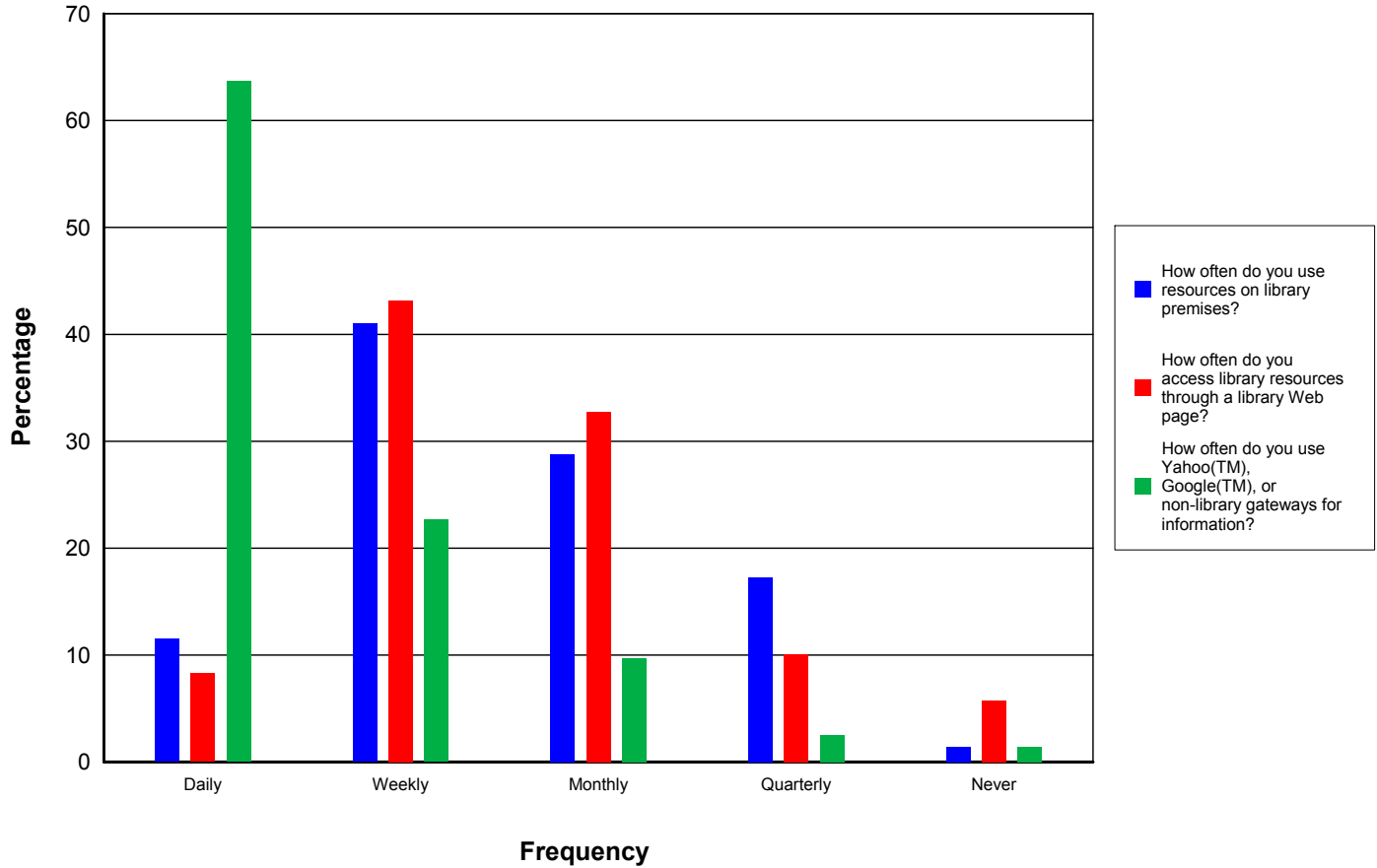
Institution Type: College or University

Consortium: None

User Group: All (Excludes Library Staff)

3.5 Library Use Summary

This chart shows a graphic representation of library use (both on the premises and electronically), as well as use of non-library information gateways such as Yahoo™ and Google™. Bars represent the frequency with which respondents report using these resources: Daily, Weekly, Monthly, Quarterly, or Never. The table below the graphic displays the number and percentage of respondents who selected each option.



	Daily	Weekly	Monthly	Quarterly	Never	n / %
How often do you use resources on library premises?	32 11.51%	114 41.01%	80 28.78%	48 17.27%	4 1.44%	278 100.00%
How often do you access library resources through a library Web page?	23 8.27%	120 43.17%	91 32.73%	28 10.07%	16 5.76%	278 100.00%
How often do you use Yahoo(TM), Google(TM), or non-library gateways for information?	177 63.67%	63 22.66%	27 9.71%	7 2.52%	4 1.44%	278 100.00%

Language: American English
 Institution Type: College or University
 Consortium: None
 User Group: All (Excludes Library Staff)

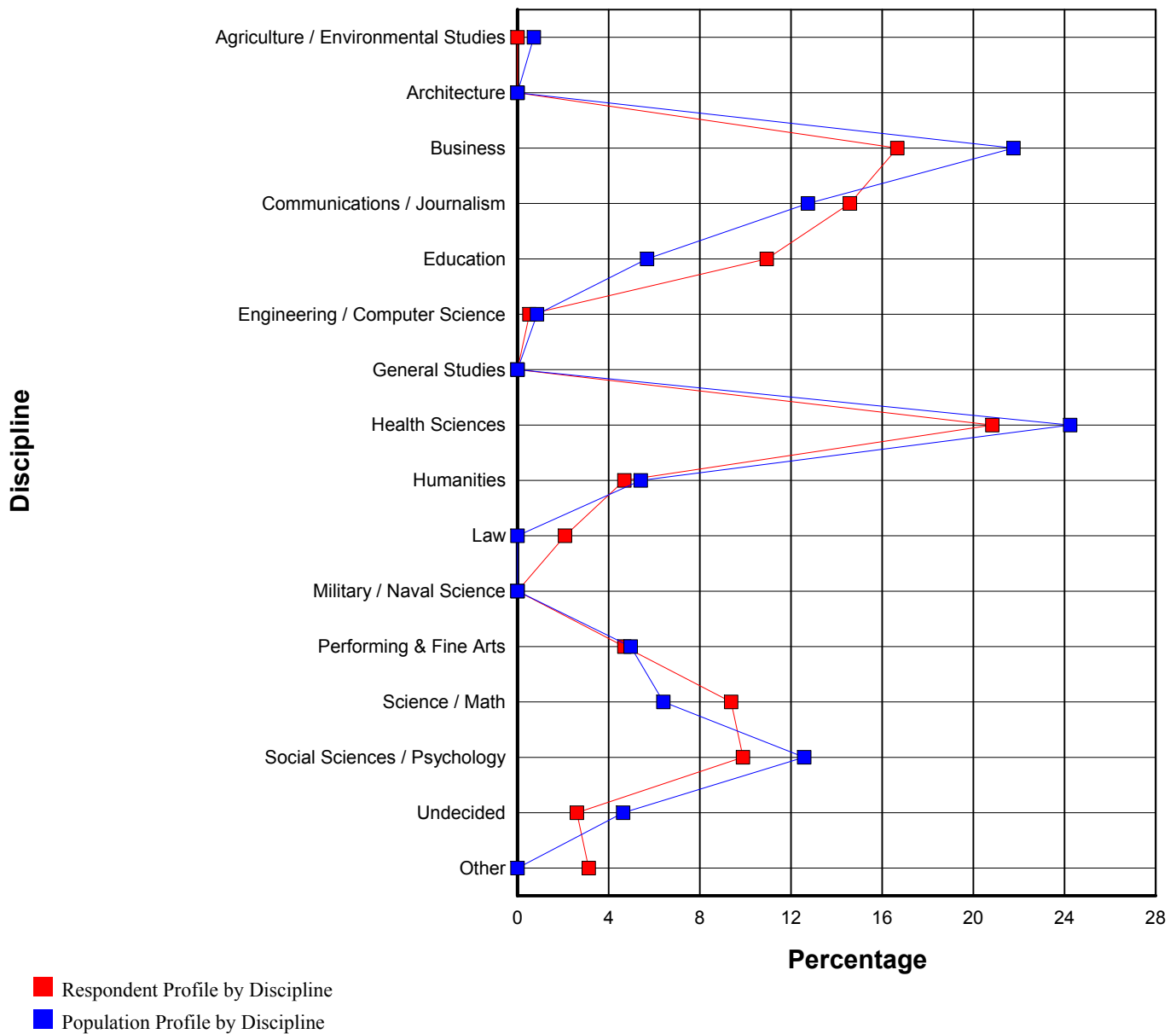
4 Undergraduate Summary

4.1 Demographic Summary for Undergraduate

4.1.1 Population and Respondent Profiles for Undergraduate by Discipline

The chart and table below show a breakdown of survey respondents by discipline, based on user responses to the demographic questions at the end of the survey instrument and the demographic data provided by institutions through the online Demographics Questionnaire.

The chart maps percentage of respondents for each discipline in red. Population percentages for each discipline are mapped in blue. The table shows the number and percentage for each discipline, for the general population (N) and for survey respondents (n).



Language: American English
 Institution Type: College or University
 Consortium: None
 User Group: Undergraduate

Discipline	Population N	Population %	Respondents n	Respondents %	%N - %n
Agriculture / Environmental Studies	26	0.72%	0	0.00%	0.72%
Architecture	0	0.00%	0	0.00%	0.00%
Business	789	21.77%	32	16.67%	5.10%
Communications / Journalism	462	12.74%	28	14.58%	-1.84%
Education	206	5.68%	21	10.94%	-5.25%
Engineering / Computer Science	31	0.86%	1	0.52%	0.33%
General Studies	0	0.00%	0	0.00%	0.00%
Health Sciences	879	24.25%	40	20.83%	3.41%
Humanities	196	5.41%	9	4.69%	0.72%
Law	0	0.00%	4	2.08%	-2.08%
Military / Naval Science	0	0.00%	0	0.00%	0.00%
Performing & Fine Arts	180	4.97%	9	4.69%	0.28%
Science / Math	232	6.40%	18	9.38%	-2.98%
Social Sciences / Psychology	456	12.58%	19	9.90%	2.68%
Undecided	168	4.63%	5	2.60%	2.03%
Other	0	0.00%	6	3.13%	-3.13%
Total:	3,625	100.00%	192	100.00%	0.00%

Language: American English
Institution Type: College or University
Consortium: None
User Group: Undergraduate

4.1.2 Respondent Profile for Undergraduate by Age

This table shows a breakdown of survey respondents by age; both the number of respondents (n) and the percentage of the total number of respondents represented by each age group are displayed. Ages are grouped into six categories: Under 18, 18-22, 23-30, 31-45, 46-65, and Over 65.

Age	Respondents n	Respondents %
Under 18	0	0.00%
18 - 22	176	91.67%
23 - 30	10	5.21%
31 - 45	4	2.08%
46 - 65	2	1.04%
Over 65	0	0.00%
Total:	192	100.00%

4.1.3 Population and Respondent Profiles for Undergraduate by Sex

The table below shows a breakdown of survey respondents by sex, based on user responses to the demographic questions at the end of the survey instrument and the demographic data provided by institutions through the online Demographics Questionnaire*. The number and percentage for each sex are given for the general population and for survey respondents.

*Note: Participating institutions were not required to complete the Demographics Questionnaire. When population data is missing or incomplete, it is because this data was not provided to ARL.

Sex	Population N	Population %	Respondents n	Respondents %
Male	1,438	39.92%	52	27.08%
Female	2,164	60.08%	140	72.92%
Total:	3,602	100.00%	192	100.00%

Language: American English

Institution Type: College or University

Consortium: None

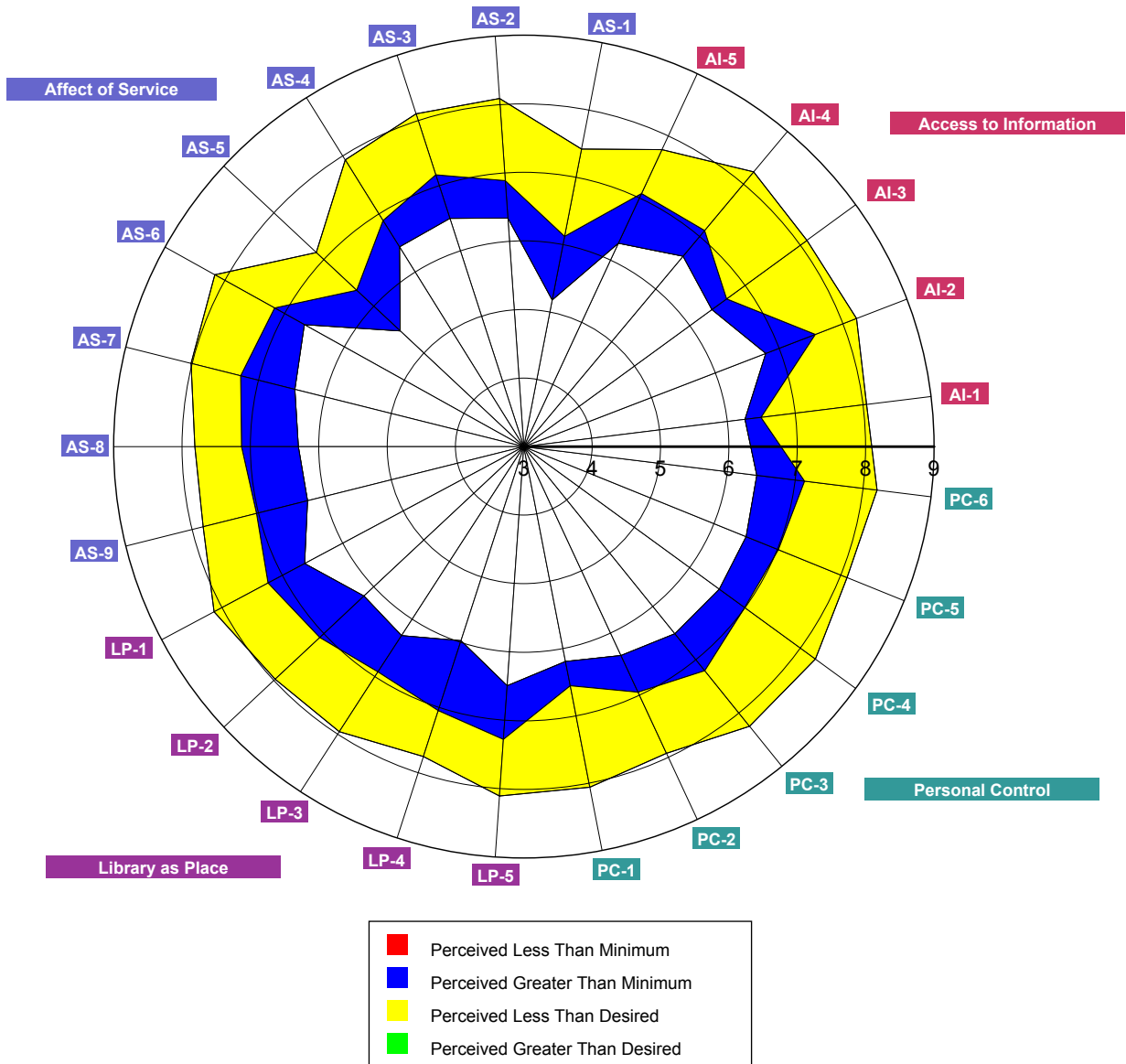
User Group: Undergraduate

4.2 Core Questions Summary for Undergraduate

This radar chart shows aggregate results for the 25 core survey questions. Each axis represents one question (a code to identify each question is displayed at the outer point of each axis). While questions for each dimension of library service quality are scattered randomly throughout the survey, here they are grouped in quadrants: Affect of Service, Access to Information, Library as Place, and Personal Control.

On each axis, respondents' minimum, desired, and perceived levels of service quality are plotted, and the resulting "gaps" between the three levels (representing service adequacy or service superiority) are shaded in blue, yellow, green, and red.

The two following tables show mean scores and standard deviations for each question, where n is the number of respondents for each particular question. (For a more detailed explanation of the headings, see the Introduction to this notebook.)



Language: American English
 Institution Type: College or University
 Consortium: None
 User Group: Undergraduate

ID	Question Text	Minimum Mean	Desired Mean	Perceived Mean	Adequacy Mean	Superiority Mean	n
Access to Information							
AI-1	Print and/or electronic journal collections I require for my work	6.26	8.05	6.50	0.24	-1.55	177
AI-2	Convenient service hours	6.79	8.21	7.57	0.78	-0.64	188
AI-3	The printed library materials I need for my work	6.40	8.12	6.67	0.27	-1.45	177
AI-4	The electronic information resources I need	6.63	8.23	7.12	0.49	-1.12	182
AI-5	Timely document delivery/interlibrary loan	6.27	7.78	7.07	0.80	-0.71	95
Affect of Service							
AS-1	Employees who instill confidence in users	5.18	7.42	6.12	0.94	-1.30	178
AS-2	Readiness to respond to users' questions	6.34	8.09	6.89	0.55	-1.20	179
AS-3	Willingness to help users	6.50	8.10	7.17	0.67	-0.93	184
AS-4	Dependability in handling users' service problems	6.43	7.93	6.89	0.45	-1.04	161
AS-5	Giving users individual attention	5.47	7.15	6.35	0.87	-0.81	171
AS-6	Employees who have the knowledge to answer user questions	6.67	8.17	7.17	0.50	-1.00	177
AS-7	Employees who are consistently courteous	6.45	8.02	7.27	0.82	-0.75	181
AS-8	Employees who deal with users in a caring fashion	6.30	7.81	7.13	0.83	-0.68	177
AS-9	Employees who understand the needs of their users	6.26	7.84	7.03	0.77	-0.80	164
Library as Place							
LP-1	Quiet space for individual activities	6.63	8.13	7.24	0.61	-0.89	188
LP-2	A comfortable and inviting location	6.20	7.97	7.08	0.89	-0.89	192
LP-3	Library space that inspires study and learning	6.29	7.96	6.92	0.63	-1.04	188
LP-4	Community space for group learning and group study	5.98	7.75	7.05	1.07	-0.70	178
LP-5	A getaway for study, learning, or research	6.50	8.11	7.28	0.78	-0.83	185
Personal Control							
PC-1	Easy-to-use access tools that allow me to find things on my own	6.19	8.06	6.55	0.36	-1.51	191
PC-2	Convenient access to library collections	6.36	7.94	6.95	0.59	-0.98	188
PC-3	A library Web site enabling me to locate information on my own	6.51	8.25	7.21	0.69	-1.04	189
PC-4	Modern equipment that lets me easily access needed information	6.54	8.27	6.99	0.46	-1.28	188
PC-5	Making information easily accessible for independent use	6.51	8.10	7.02	0.51	-1.08	189
PC-6	Making electronic resources accessible from my home or office	6.43	8.21	7.14	0.71	-1.07	180
Overall:		6.32	7.99	6.98	0.66	-1.01	192

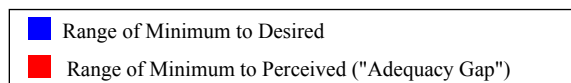
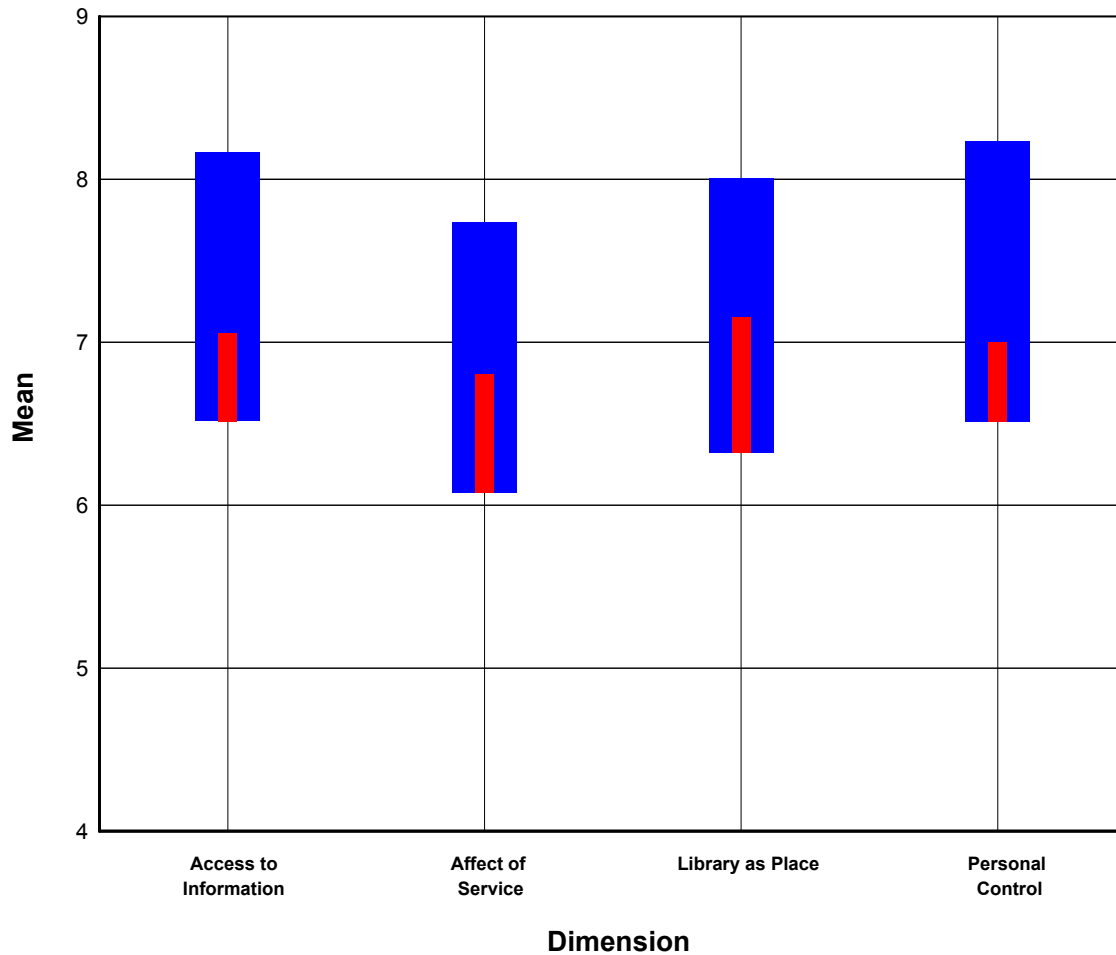
Language: American English
Institution Type: College or University
Consortium: None
User Group: Undergraduate

ID	Question Text	Minimum SD	Desired SD	Perceived SD	Adequacy SD	Superiority SD	n
Access to Information							
AI-1	Print and/or electronic journal collections I require for my work	1.64	1.29	1.79	2.13	1.90	177
AI-2	Convenient service hours	1.54	1.09	1.50	1.78	1.70	188
AI-3	The printed library materials I need for my work	1.68	1.09	1.59	2.12	1.89	177
AI-4	The electronic information resources I need	1.46	1.08	1.54	1.89	1.65	182
AI-5	Timely document delivery/interlibrary loan	1.65	1.34	1.57	1.81	1.60	95
Affect of Service							
AS-1	Employees who instill confidence in users	1.62	1.49	1.70	1.79	1.71	178
AS-2	Readiness to respond to users' questions	1.66	1.16	1.72	1.83	1.67	179
AS-3	Willingness to help users	1.60	1.15	1.49	1.69	1.48	184
AS-4	Dependability in handling users' service problems	1.56	1.14	1.42	1.55	1.40	161
AS-5	Giving users individual attention	1.75	1.57	1.68	1.82	1.76	171
AS-6	Employees who have the knowledge to answer user questions	1.52	1.18	1.57	1.59	1.51	177
AS-7	Employees who are consistently courteous	1.76	1.18	1.49	1.77	1.33	181
AS-8	Employees who deal with users in a caring fashion	1.55	1.32	1.37	1.50	1.29	177
AS-9	Employees who understand the needs of their users	1.69	1.36	1.36	1.63	1.31	164
Library as Place							
LP-1	Quiet space for individual activities	1.89	1.36	1.78	2.13	2.13	188
LP-2	A comfortable and inviting location	1.72	1.21	1.69	2.14	1.90	192
LP-3	Library space that inspires study and learning	1.74	1.30	1.70	2.14	1.98	188
LP-4	Community space for group learning and group study	1.67	1.36	1.65	2.01	1.75	178
LP-5	A getaway for study, learning, or research	1.64	1.21	1.40	1.67	1.46	185
Personal Control							
PC-1	Easy-to-use access tools that allow me to find things on my own	1.63	1.26	1.72	2.03	1.84	191
PC-2	Convenient access to library collections	1.52	1.12	1.45	1.81	1.62	188
PC-3	A library Web site enabling me to locate information on my own	1.52	1.00	1.54	1.78	1.62	189
PC-4	Modern equipment that lets me easily access needed information	1.49	0.99	1.40	1.79	1.62	188
PC-5	Making information easily accessible for independent use	1.44	1.05	1.30	1.61	1.39	189
PC-6	Making electronic resources accessible from my home or office	1.64	1.09	1.59	2.14	1.81	180
Overall:		1.20	0.81	1.00	1.20	1.02	192

Language: American English
Institution Type: College or University
Consortium: None
User Group: Undergraduate

4.3 Core Question Dimensions Summary for Undergraduate

On the chart below, scores for each dimension of library service quality have been plotted graphically. The blue bars represent the range of minimum to desired scores for each dimension. The interior red bars represent the range of minimum to perceived scores (the service adequacy gap) for each dimension of library service quality.



Language: American English
 Institution Type: College or University
 Consortium: None
 User Group: Undergraduate

The following table displays mean scores for each dimension of library service quality measured by the LibQUAL+™ survey, where n is the number of respondents for each particular dimension. (For a more detailed explanation of the headings, see the Introduction to this notebook.) A complete listing of the survey questions and their dimensions can be found in Appendix B.

Dimension	Minimum Mean	Desired Mean	Perceived Mean	Adequacy Mean	Superiority Mean	n
Access to Information	6.52	8.17	7.06	0.52	-1.16	192
Affect of Service	6.07	7.73	6.80	0.72	-0.92	192
Library as Place	6.32	8.01	7.16	0.79	-0.85	192
Personal Control	6.51	8.23	7.00	0.57	-1.22	192
Overall:	6.32	7.99	6.98	0.66	-1.01	192

The following table displays standard deviation for each dimension of library service quality measured by the LibQUAL+™ survey, where n is the number of respondents for each particular dimension. (For a more detailed explanation of the headings, see the Introduction to this notebook.) A complete listing of the survey questions and their dimensions can be found in Appendix B.

Dimension	Minimum SD	Desired SD	Perceived SD	Adequacy SD	Superiority SD	n
Access to Information	1.27	0.91	1.20	1.49	1.32	192
Affect of Service	1.53	1.41	1.50	1.34	1.13	192
Library as Place	1.41	1.05	1.31	1.57	1.49	192
Personal Control	1.26	0.83	1.18	1.52	1.32	192
Overall:	1.20	0.81	1.00	1.20	1.02	192

Language:	American English
Institution Type:	College or University
Consortium:	None
User Group:	Undergraduate

4.4 General Satisfaction Questions Summary for Undergraduate

This table displays the mean score and standard deviation for each of the general satisfaction questions: Satisfaction with Treatment, Satisfaction with Support, and Satisfaction with Overall Quality of Service, where n is the number of respondents for each particular question. These scores are calculated from responses to the general satisfaction questions on the LibQUAL+™ survey, in which respondents rated their levels of general satisfaction on a scale from 1-9.

Satisfaction Question	Mean	SD	n
In general, I am satisfied with the way in which I am treated at the library.	7.29	1.60	192
In general, I am satisfied with library support for my learning, research, and/or teaching needs.	6.60	1.88	192
How would you rate the overall quality of the service provided by the library?	6.86	1.39	192

4.5 Information Literacy Outcomes Questions Summary for Undergraduate

This table displays the mean score and standard deviation for each of the information literacy outcomes questions, where n is the number of respondents for each particular question. These scores are calculated from responses to the information literacy outcomes questions on the LibQUAL+™ survey, in which respondents rated their levels of general satisfaction on a scale from 1-9 with 1 being "strongly disagree" and 9 representing "strongly agree".

Information Literacy Outcomes Questions	Mean	SD	n
The library helps me stay abreast of developments in my field(s) of interest.	5.38	1.85	192
The library aids my advancement in my academic discipline.	6.11	1.81	192
The library enables me to be more efficient in my academic pursuits.	6.48	1.70	192
The library helps me distinguish between trustworthy and untrustworthy information.	5.51	1.77	192
The library provides me with the information skills I need in my work or study.	5.86	1.83	192

Language: American English

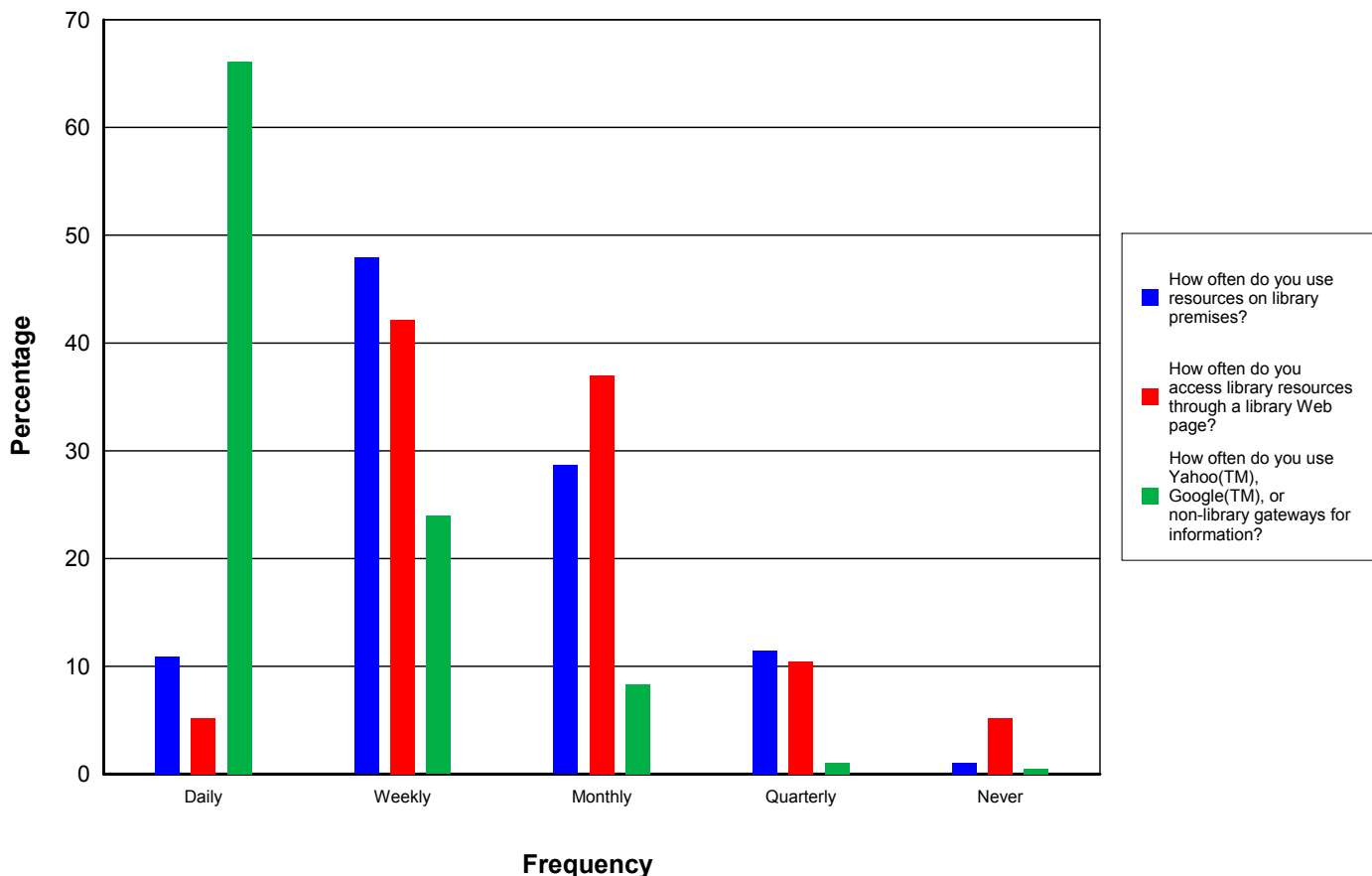
Institution Type: College or University

Consortium: None

User Group: Undergraduate

4.6 Library Use Summary for Undergraduate

This chart shows a graphic representation of library use (both on the premises and electronically), as well as use of non-library information gateways such as Yahoo™ and Google™. Bars represent the frequency with which respondents report using these resources: Daily, Weekly, Monthly, Quarterly, or Never. The table below the graphic displays the number and percentage of respondents who selected each option.



	Daily	Weekly	Monthly	Quarterly	Never	n / %
How often do you use resources on library premises?	21 10.94%	92 47.92%	55 28.65%	22 11.46%	2 1.04%	192 100.00%
How often do you access library resources through a library Web page?	10 5.21%	81 42.19%	71 36.98%	20 10.42%	10 5.21%	192 100.00%
How often do you use Yahoo(TM), Google(TM), or non-library gateways for information?	127 66.15%	46 23.96%	16 8.33%	2 1.04%	1 0.52%	192 100.00%

Language: American English
 Institution Type: College or University
 Consortium: None
 User Group: Undergraduate

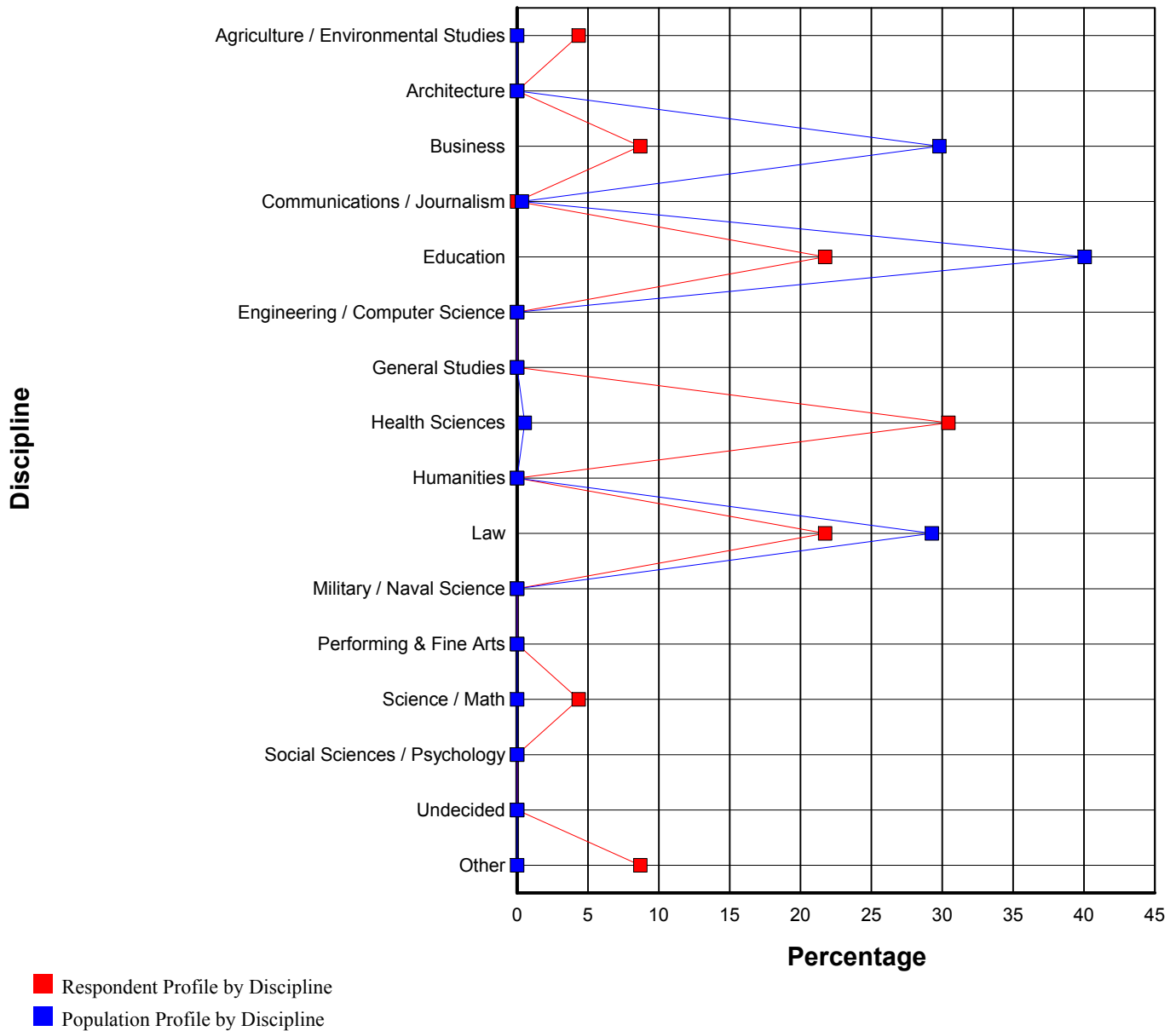
5 Graduate Summary

5.1 Demographic Summary for Graduate

5.1.1 Population and Respondent Profiles for Graduate by Discipline

The chart and table below show a breakdown of survey respondents by discipline, based on user responses to the demographic questions at the end of the survey instrument and the demographic data provided by institutions through the online Demographics Questionnaire.

The chart maps percentage of respondents for each discipline in red. Population percentages for each discipline are mapped in blue. The table shows the number and percentage for each discipline, for the general population (N) and for survey respondents (n).



Language: American English
 Institution Type: College or University
 Consortium: None
 User Group: Graduate

Discipline	Population N	Population %	Respondents n	Respondents %	%N - %n
Agriculture / Environmental Studies	0	0.00%	1	4.35%	-4.35%
Architecture	0	0.00%	0	0.00%	0.00%
Business	442	29.80%	2	8.70%	21.11%
Communications / Journalism	5	0.34%	0	0.00%	0.34%
Education	594	40.05%	5	21.74%	18.31%
Engineering / Computer Science	0	0.00%	0	0.00%	0.00%
General Studies	0	0.00%	0	0.00%	0.00%
Health Sciences	8	0.54%	7	30.43%	-29.90%
Humanities	0	0.00%	0	0.00%	0.00%
Law	434	29.27%	5	21.74%	7.53%
Military / Naval Science	0	0.00%	0	0.00%	0.00%
Performing & Fine Arts	0	0.00%	0	0.00%	0.00%
Science / Math	0	0.00%	1	4.35%	-4.35%
Social Sciences / Psychology	0	0.00%	0	0.00%	0.00%
Undecided	0	0.00%	0	0.00%	0.00%
Other	0	0.00%	2	8.70%	-8.70%
Total:	1,483	100.00%	23	100.00%	0.00%

Language: American English
Institution Type: College or University
Consortium: None
User Group: Graduate

5.1.2 Respondent Profile for Graduate by Age

This table shows a breakdown of survey respondents by age; both the number of respondents (n) and the percentage of the total number of respondents represented by each age group are displayed. Ages are grouped into six categories: Under 18, 18-22, 23-30, 31-45, 46-65, and Over 65.

Age	Respondents n	Respondents %
Under 18	1	4.35%
18 - 22	5	21.74%
23 - 30	9	39.13%
31 - 45	6	26.09%
46 - 65	2	8.70%
Over 65	0	0.00%
Total:	23	100.00%

5.1.3 Population and Respondent Profiles for Graduate by Sex

The table below shows a breakdown of survey respondents by sex, based on user responses to the demographic questions at the end of the survey instrument and the demographic data provided by institutions through the online Demographics Questionnaire*. The number and percentage for each sex are given for the general population and for survey respondents.

*Note: Participating institutions were not required to complete the Demographics Questionnaire. When population data is missing or incomplete, it is because this data was not provided to ARL.

Sex	Population N	Population %	Respondents n	Respondents %
Male	659	44.53%	11	47.83%
Female	821	55.47%	12	52.17%
Total:	1,480	100.00%	23	100.00%

Language: American English

Institution Type: College or University

Consortium: None

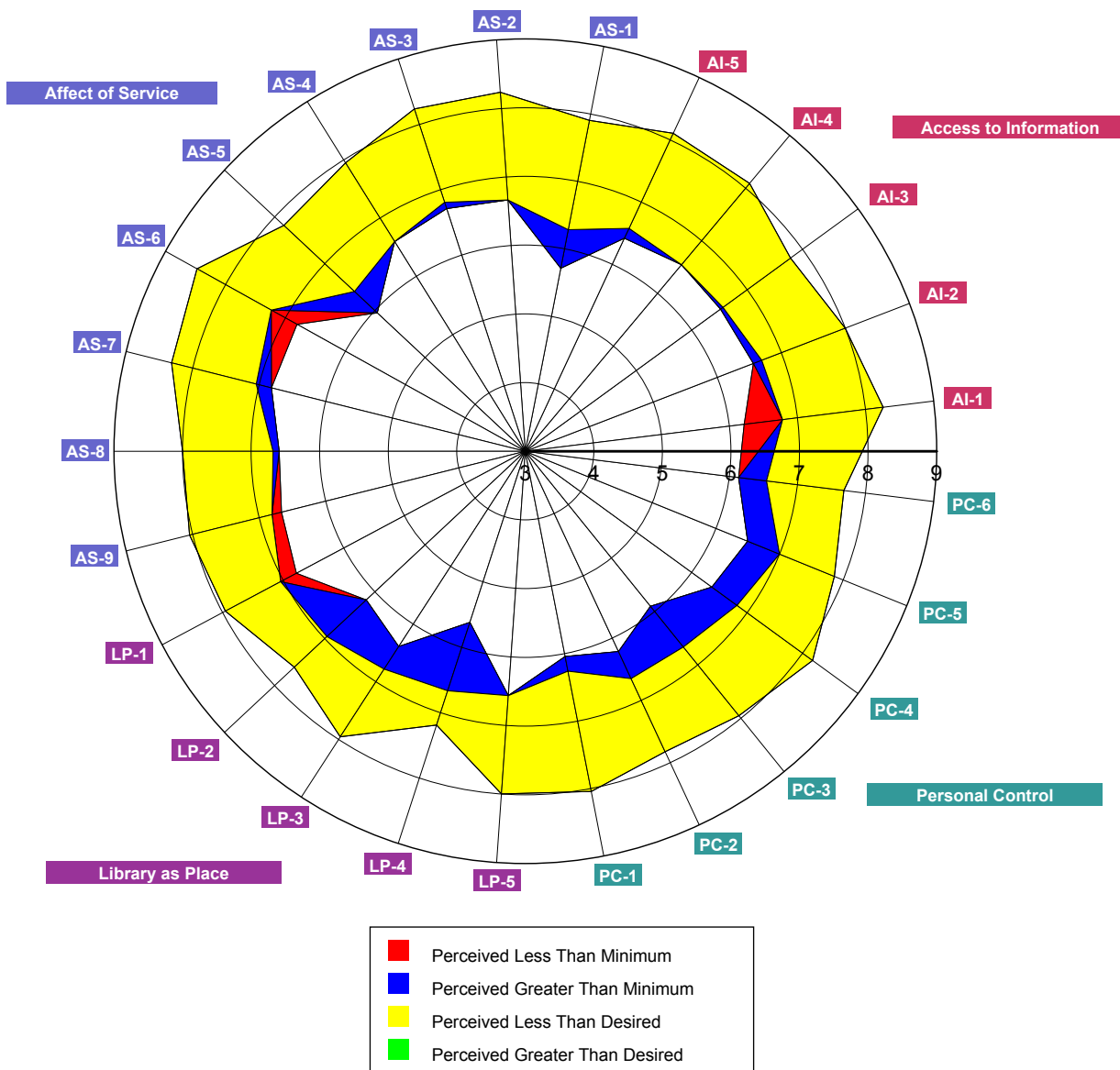
User Group: Graduate

5.2 Core Questions Summary for Graduate

This radar chart shows aggregate results for the 25 core survey questions. Each axis represents one question (a code to identify each question is displayed at the outer point of each axis). While questions for each dimension of library service quality are scattered randomly throughout the survey, here they are grouped in quadrants: Affect of Service, Access to Information, Library as Place, and Personal Control.

On each axis, respondents' minimum, desired, and perceived levels of service quality are plotted, and the resulting "gaps" between the three levels (representing service adequacy or service superiority) are shaded in blue, yellow, green, and red.

The two following tables show mean scores and standard deviations for each question, where n is the number of respondents for each particular question. (For a more detailed explanation of the headings, see the Introduction to this notebook.)



Language: American English
 Institution Type: College or University
 Consortium: None
 User Group: Graduate

ID	Question Text	Minimum Mean	Desired Mean	Perceived Mean	Adequacy Mean	Superiority Mean	n
Access to Information							
AI-1	Print and/or electronic journal collections I require for my work	6.78	8.26	6.22	-0.57	-2.04	23
AI-2	Convenient service hours	6.57	8.00	6.70	0.13	-1.30	23
AI-3	The printed library materials I need for my work	6.52	7.78	6.57	0.04	-1.22	23
AI-4	The electronic information resources I need	6.55	8.09	6.55	0.00	-1.55	22
AI-5	Timely document delivery/interlibrary loan	6.42	8.11	6.58	0.16	-1.53	19
Affect of Service							
AS-1	Employees who instill confidence in users	5.71	7.90	6.29	0.57	-1.62	21
AS-2	Readiness to respond to users' questions	6.67	8.24	6.67	0.00	-1.57	21
AS-3	Willingness to help users	6.71	8.24	6.81	0.10	-1.43	21
AS-4	Dependability in handling users' service problems	6.60	7.95	6.60	0.00	-1.35	20
AS-5	Giving users individual attention	5.95	7.82	6.41	0.45	-1.41	22
AS-6	Employees who have the knowledge to answer user questions	7.24	8.48	6.81	-0.43	-1.67	21
AS-7	Employees who are consistently courteous	6.82	8.32	7.05	0.23	-1.27	22
AS-8	Employees who deal with users in a caring fashion	6.59	8.00	6.68	0.09	-1.32	22
AS-9	Employees who understand the needs of their users	6.81	8.05	6.67	-0.14	-1.38	21
Library as Place							
LP-1	Quiet space for individual activities	7.04	7.96	6.78	-0.26	-1.17	23
LP-2	A comfortable and inviting location	6.17	7.61	6.96	0.78	-0.65	23
LP-3	Library space that inspires study and learning	6.39	7.96	6.78	0.39	-1.17	23
LP-4	Community space for group learning and group study	5.62	7.19	6.67	1.05	-0.52	21
LP-5	A getaway for study, learning, or research	6.57	8.00	6.57	0.00	-1.43	23
Personal Control							
PC-1	Easy-to-use access tools that allow me to find things on my own	6.04	8.04	6.26	0.22	-1.78	23
PC-2	Convenient access to library collections	6.22	7.83	6.65	0.43	-1.17	23
PC-3	A library Web site enabling me to locate information on my own	5.90	7.95	6.67	0.76	-1.29	21
PC-4	Modern equipment that lets me easily access needed information	6.36	8.18	6.82	0.45	-1.36	22
PC-5	Making information easily accessible for independent use	6.50	7.86	7.00	0.50	-0.86	22
PC-6	Making electronic resources accessible from my home or office	6.14	7.68	6.55	0.41	-1.14	22
Overall:		6.43	7.98	6.63	0.20	-1.35	23

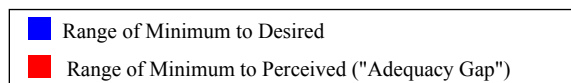
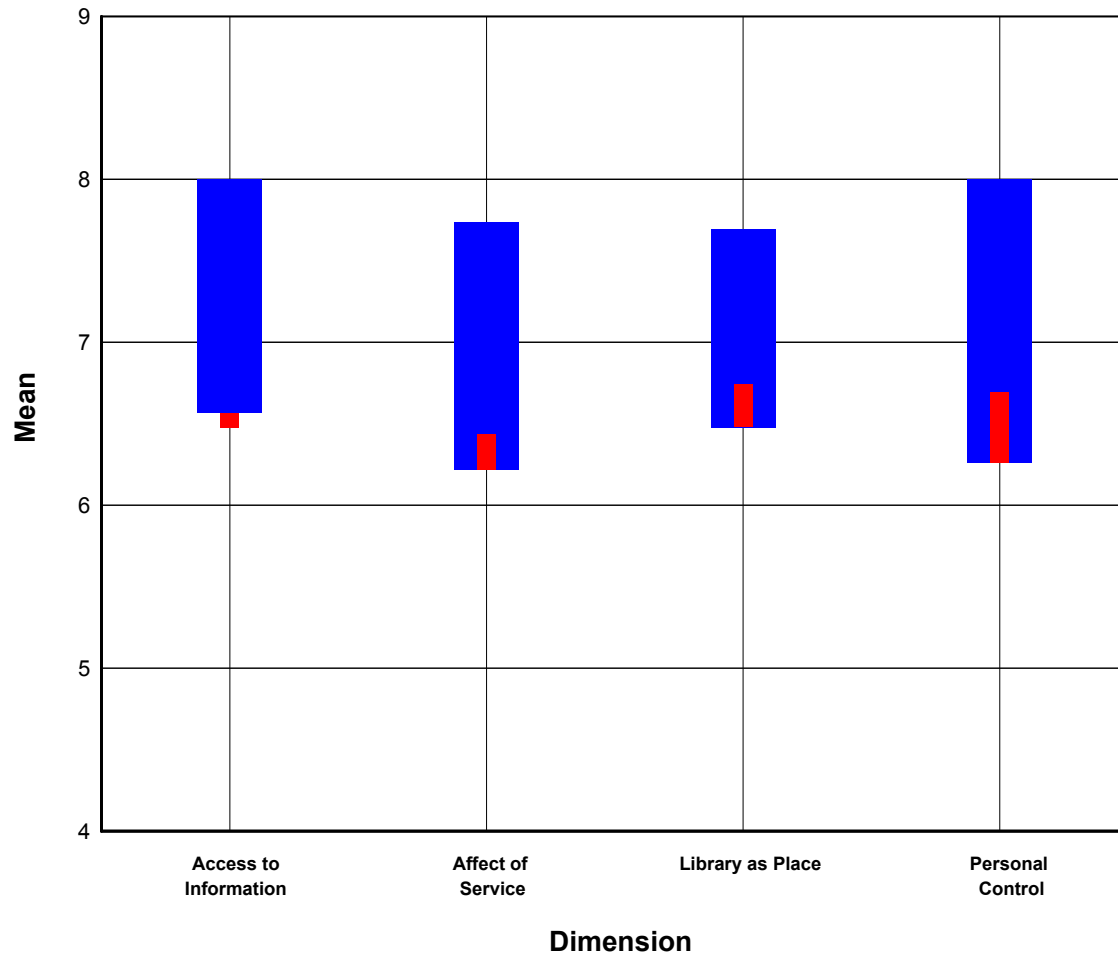
Language: American English
Institution Type: College or University
Consortium: None
User Group: Graduate

ID	Question Text	Minimum SD	Desired SD	Perceived SD	Adequacy SD	Superiority SD	n
Access to Information							
AI-1	Print and/or electronic journal collections I require for my work	1.51	1.21	2.26	2.50	2.33	23
AI-2	Convenient service hours	1.62	1.28	1.74	1.94	1.36	23
AI-3	The printed library materials I need for my work	1.90	1.41	2.02	2.57	2.35	23
AI-4	The electronic information resources I need	1.37	1.15	1.87	2.29	2.15	22
AI-5	Timely document delivery/interlibrary loan	2.24	1.59	1.87	2.89	1.98	19
Affect of Service							
AS-1	Employees who instill confidence in users	1.65	1.51	2.24	2.16	2.01	21
AS-2	Readiness to respond to users' questions	1.59	1.34	2.03	1.95	2.23	21
AS-3	Willingness to help users	1.49	1.37	2.04	2.32	2.25	21
AS-4	Dependability in handling users' service problems	1.57	1.32	2.21	2.66	2.11	20
AS-5	Giving users individual attention	1.50	1.50	2.17	2.22	2.11	22
AS-6	Employees who have the knowledge to answer user questions	1.48	0.98	2.32	2.82	2.44	21
AS-7	Employees who are consistently courteous	1.59	1.04	2.13	2.33	2.25	22
AS-8	Employees who deal with users in a caring fashion	1.87	1.20	1.99	2.74	2.28	22
AS-9	Employees who understand the needs of their users	1.60	1.32	2.03	2.59	2.38	21
Library as Place							
LP-1	Quiet space for individual activities	1.46	1.22	1.59	1.81	1.56	23
LP-2	A comfortable and inviting location	1.59	1.50	1.55	1.68	1.64	23
LP-3	Library space that inspires study and learning	1.88	1.46	1.44	2.06	1.85	23
LP-4	Community space for group learning and group study	1.83	1.72	1.35	1.56	1.72	21
LP-5	A getaway for study, learning, or research	1.83	1.41	1.78	1.93	2.06	23
Personal Control							
PC-1	Easy-to-use access tools that allow me to find things on my own	1.64	1.46	1.71	2.00	2.13	23
PC-2	Convenient access to library collections	1.48	1.40	1.53	1.44	1.44	23
PC-3	A library Web site enabling me to locate information on my own	2.00	1.60	1.56	2.21	1.87	21
PC-4	Modern equipment that lets me easily access needed information	1.76	1.26	1.71	2.20	1.87	22
PC-5	Making information easily accessible for independent use	1.65	1.55	1.45	2.02	2.32	22
PC-6	Making electronic resources accessible from my home or office	1.58	1.55	1.47	1.62	1.46	22
Overall:		1.28	0.99	1.52	1.80	1.52	23

Language: American English
Institution Type: College or University
Consortium: None
User Group: Graduate

5.3 Core Question Dimensions Summary for Graduate

On the chart below, scores for each dimension of library service quality have been plotted graphically. The blue bars represent the range of minimum to desired scores for each dimension. The interior red bars represent the range of minimum to perceived scores (the service adequacy gap) for each dimension of library service quality.



Language: American English
 Institution Type: College or University
 Consortium: None
 User Group: Graduate

The following table displays mean scores for each dimension of library service quality measured by the LibQUAL+™ survey, where n is the number of respondents for each particular dimension. (For a more detailed explanation of the headings, see the Introduction to this notebook.) A complete listing of the survey questions and their dimensions can be found in Appendix B.

Dimension	Minimum Mean	Desired Mean	Perceived Mean	Adequacy Mean	Superiority Mean	n
Access to Information	6.57	8.00	6.48	0.00	-1.52	23
Affect of Service	6.22	7.74	6.43	0.09	-1.35	23
Library as Place	6.48	7.70	6.74	0.35	-1.00	23
Personal Control	6.26	8.00	6.70	0.43	-1.35	23
Overall:	6.43	7.98	6.63	0.20	-1.35	23

The following table displays standard deviation for each dimension of library service quality measured by the LibQUAL+™ survey, where n is the number of respondents for each particular dimension. (For a more detailed explanation of the headings, see the Introduction to this notebook.) A complete listing of the survey questions and their dimensions can be found in Appendix B.

Dimension	Minimum SD	Desired SD	Perceived SD	Adequacy SD	Superiority SD	n
Access to Information	1.31	1.09	1.73	2.30	1.90	23
Affect of Service	1.93	2.00	2.35	2.17	2.17	23
Library as Place	1.38	1.11	1.42	1.70	1.54	23
Personal Control	1.36	1.17	1.29	1.62	1.40	23
Overall:	1.28	0.99	1.52	1.80	1.52	23

Language: American English
 Institution Type: College or University
 Consortium: None
 User Group: Graduate

5.4 General Satisfaction Questions Summary for Graduate

This table displays the mean score and standard deviation for each of the general satisfaction questions: Satisfaction with Treatment, Satisfaction with Support, and Satisfaction with Overall Quality of Service, where n is the number of respondents for each particular question. These scores are calculated from responses to the general satisfaction questions on the LibQUAL+™ survey, in which respondents rated their levels of general satisfaction on a scale from 1-9.

Satisfaction Question	Mean	SD	n
In general, I am satisfied with the way in which I am treated at the library.	6.96	2.18	23
In general, I am satisfied with library support for my learning, research, and/or teaching needs.	6.48	1.90	23
How would you rate the overall quality of the service provided by the library?	6.57	1.95	23

5.5 Information Literacy Outcomes Questions Summary for Graduate

This table displays the mean score and standard deviation for each of the information literacy outcomes questions, where n is the number of respondents for each particular question. These scores are calculated from responses to the information literacy outcomes questions on the LibQUAL+™ survey, in which respondents rated their levels of general satisfaction on a scale from 1-9 with 1 being "strongly disagree" and 9 representing "strongly agree".

Information Literacy Outcomes Questions	Mean	SD	n
The library helps me stay abreast of developments in my field(s) of interest.	5.65	2.04	23
The library aids my advancement in my academic discipline.	6.09	1.83	23
The library enables me to be more efficient in my academic pursuits.	6.65	1.75	23
The library helps me distinguish between trustworthy and untrustworthy information.	5.39	2.17	23
The library provides me with the information skills I need in my work or study.	5.96	2.23	23

Language: American English

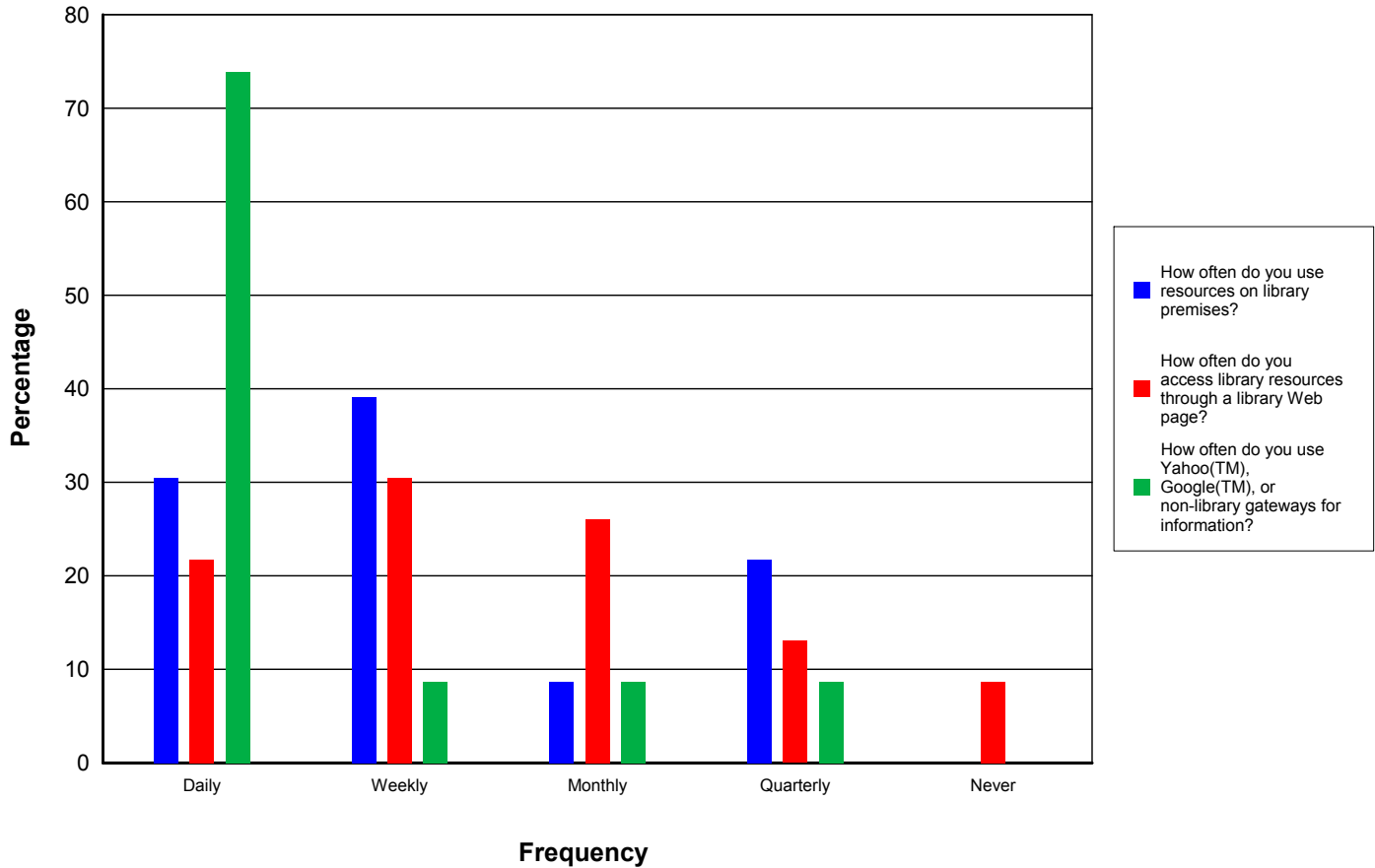
Institution Type: College or University

Consortium: None

User Group: Graduate

5.6 Library Use Summary for Graduate

This chart shows a graphic representation of library use (both on the premises and electronically), as well as use of non-library information gateways such as Yahoo™ and Google™. Bars represent the frequency with which respondents report using these resources: Daily, Weekly, Monthly, Quarterly, or Never. The table below the graphic displays the number and percentage of respondents who selected each option.



	Daily	Weekly	Monthly	Quarterly	Never	n / %
How often do you use resources on library premises?	7 30.43%	9 39.13%	2 8.70%	5 21.74%	0 0.00%	23 100.00%
How often do you access library resources through a library Web page?	5 21.74%	7 30.43%	6 26.09%	3 13.04%	2 8.70%	23 100.00%
How often do you use Yahoo(TM), Google(TM), or non-library gateways for information?	17 73.91%	2 8.70%	2 8.70%	2 8.70%	0 0.00%	23 100.00%

Language: American English
 Institution Type: College or University
 Consortium: None
 User Group: Graduate

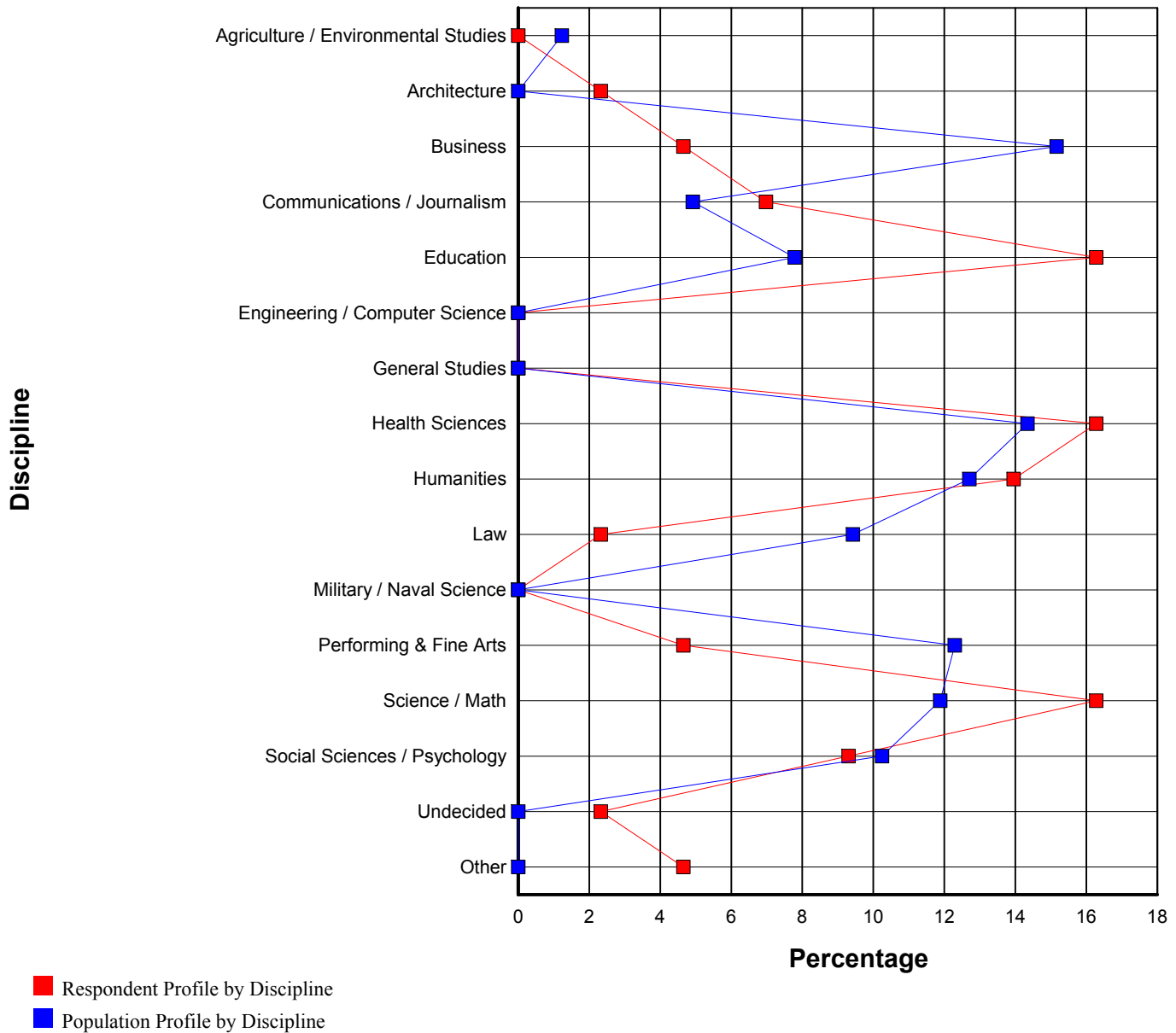
6 Faculty Summary

6.1 Demographic Summary for Faculty

6.1.1 Population and Respondent Profiles for Faculty by Discipline

The chart and table below show a breakdown of survey respondents by discipline, based on user responses to the demographic questions at the end of the survey instrument and the demographic data provided by institutions through the online Demographics Questionnaire.

The chart maps percentage of respondents for each discipline in red. Population percentages for each discipline are mapped in blue. The table shows the number and percentage for each discipline, for the general population (N) and for survey respondents (n).



Language: American English
 Institution Type: College or University
 Consortium: None
 User Group: Faculty

Discipline	Population N	Population %	Respondents n	Respondents %	%N - %n
Agriculture / Environmental Studies	3	1.23%	0	0.00%	1.23%
Architecture	0	0.00%	1	2.33%	-2.33%
Business	37	15.16%	2	4.65%	10.51%
Communications / Journalism	12	4.92%	3	6.98%	-2.06%
Education	19	7.79%	7	16.28%	-8.49%
Engineering / Computer Science	0	0.00%	0	0.00%	0.00%
General Studies	0	0.00%	0	0.00%	0.00%
Health Sciences	35	14.34%	7	16.28%	-1.93%
Humanities	31	12.70%	6	13.95%	-1.25%
Law	23	9.43%	1	2.33%	7.10%
Military / Naval Science	0	0.00%	0	0.00%	0.00%
Performing & Fine Arts	30	12.30%	2	4.65%	7.64%
Science / Math	29	11.89%	7	16.28%	-4.39%
Social Sciences / Psychology	25	10.25%	4	9.30%	0.94%
Undecided	0	0.00%	1	2.33%	-2.33%
Other	0	0.00%	2	4.65%	-4.65%
Total:	244	100.00%	43	100.00%	0.00%

Language: American English
Institution Type: College or University
Consortium: None
User Group: Faculty

6.1.2 Respondent Profile for Faculty by Age

This table shows a breakdown of survey respondents by age; both the number of respondents (n) and the percentage of the total number of respondents represented by each age group are displayed. Ages are grouped into six categories: Under 18, 18-22, 23-30, 31-45, 46-65, and Over 65.

Age	Respondents n	Respondents %
Under 18	0	0.00%
18 - 22	0	0.00%
23 - 30	2	4.65%
31 - 45	13	30.23%
46 - 65	27	62.79%
Over 65	1	2.33%
Total:	43	100.00%

6.1.3 Population and Respondent Profiles for Faculty by Sex

The table below shows a breakdown of survey respondents by sex, based on user responses to the demographic questions at the end of the survey instrument and the demographic data provided by institutions through the online Demographics Questionnaire*. The number and percentage for each sex are given for the general population and for survey respondents.

*Note: Participating institutions were not required to complete the Demographics Questionnaire. When population data is missing or incomplete, it is because this data was not provided to ARL.

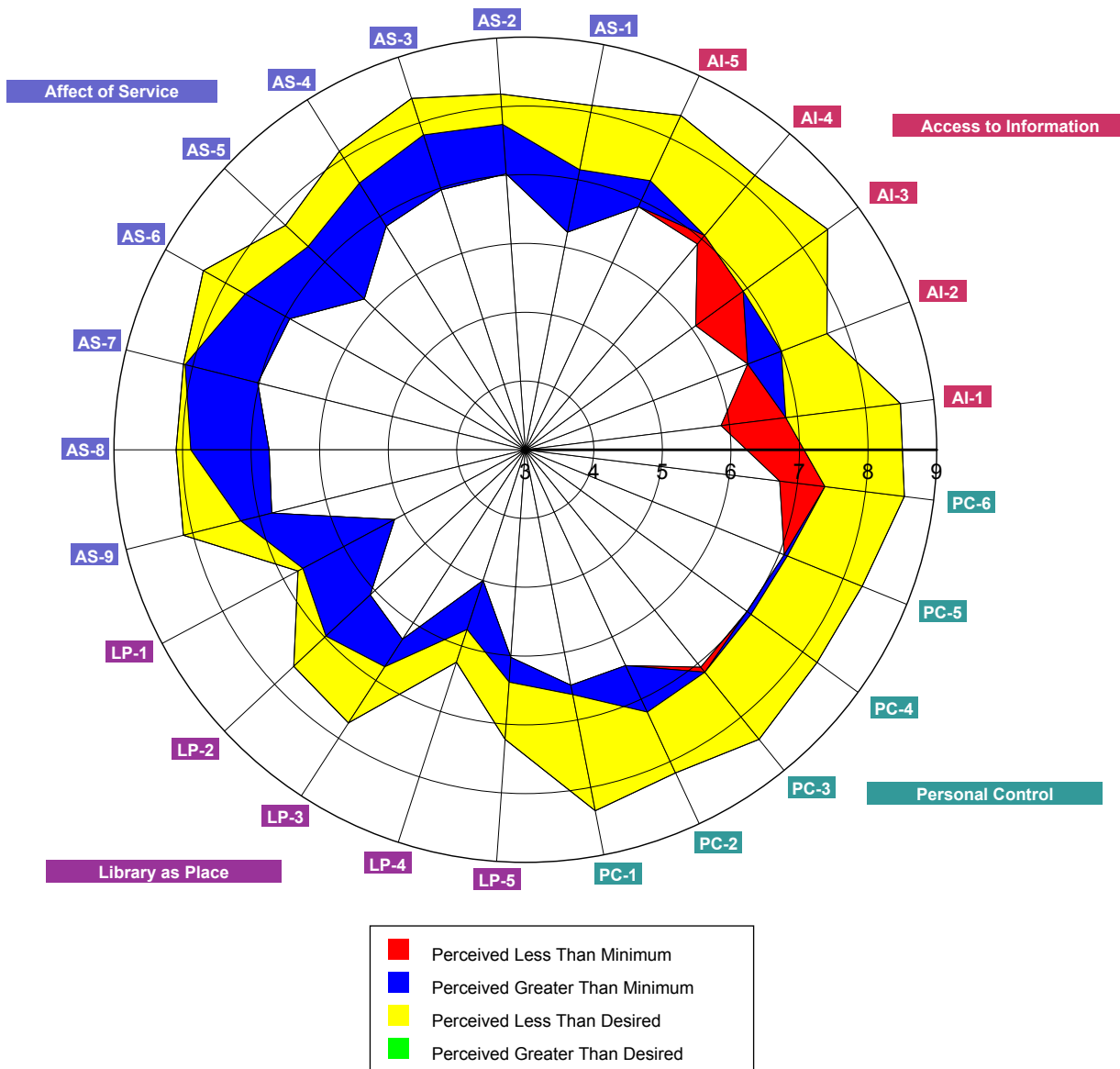
Sex	Population N	Population %	Respondents n	Respondents %
Male	146	59.84%	21	48.84%
Female	98	40.16%	22	51.16%
Total:	244	100.00%	43	100.00%

6.2 Core Questions Summary for Faculty

This radar chart shows aggregate results for the 25 core survey questions. Each axis represents one question (a code to identify each question is displayed at the outer point of each axis). While questions for each dimension of library service quality are scattered randomly throughout the survey, here they are grouped in quadrants: Affect of Service, Access to Information, Library as Place, and Personal Control.

On each axis, respondents' minimum, desired, and perceived levels of service quality are plotted, and the resulting "gaps" between the three levels (representing service adequacy or service superiority) are shaded in blue, yellow, green, and red.

The two following tables show mean scores and standard deviations for each question, where n is the number of respondents for each particular question. (For a more detailed explanation of the headings, see the Introduction to this notebook.)



Language: American English
 Institution Type: College or University
 Consortium: None
 User Group: Faculty

ID	Question Text	Minimum Mean	Desired Mean	Perceived Mean	Adequacy Mean	Superiority Mean	n
Access to Information							
AI-1	Print and/or electronic journal collections I require for my work	6.83	8.51	5.88	-0.95	-2.63	41
AI-2	Convenient service hours	6.48	7.71	7.00	0.52	-0.71	42
AI-3	The printed library materials I need for my work	6.93	8.45	6.07	-0.86	-2.38	42
AI-4	The electronic information resources I need	7.07	8.21	6.91	-0.16	-1.30	43
AI-5	Timely document delivery/interlibrary loan	6.90	8.37	7.32	0.41	-1.05	41
Affect of Service							
AS-1	Employees who instill confidence in users	6.23	8.10	7.15	0.93	-0.95	40
AS-2	Readiness to respond to users' questions	7.02	8.19	7.74	0.72	-0.44	43
AS-3	Willingness to help users	6.98	8.37	7.81	0.84	-0.56	43
AS-4	Dependability in handling users' service problems	6.83	8.12	7.57	0.74	-0.55	42
AS-5	Giving users individual attention	6.21	7.79	7.33	1.12	-0.45	42
AS-6	Employees who have the knowledge to answer user questions	6.93	8.37	7.67	0.74	-0.70	43
AS-7	Employees who are consistently courteous	7.02	8.14	8.12	1.09	-0.02	43
AS-8	Employees who deal with users in a caring fashion	6.74	8.10	7.88	1.14	-0.21	42
AS-9	Employees who understand the needs of their users	6.81	8.14	7.28	0.47	-0.86	43
Library as Place							
LP-1	Quiet space for individual activities	5.16	6.76	6.68	1.51	-0.08	37
LP-2	A comfortable and inviting location	6.10	7.62	6.98	0.88	-0.64	42
LP-3	Library space that inspires study and learning	6.29	7.74	6.76	0.47	-0.97	38
LP-4	Community space for group learning and group study	5.00	6.25	5.75	0.75	-0.50	32
LP-5	A getaway for study, learning, or research	6.03	7.22	6.39	0.36	-0.83	36
Personal Control							
PC-1	Easy-to-use access tools that allow me to find things on my own	6.49	8.35	6.63	0.14	-1.72	43
PC-2	Convenient access to library collections	6.47	8.19	7.21	0.74	-0.98	43
PC-3	A library Web site enabling me to locate information on my own	7.16	8.42	7.07	-0.09	-1.35	43
PC-4	Modern equipment that lets me easily access needed information	7.00	8.26	7.07	0.07	-1.19	42
PC-5	Making information easily accessible for independent use	7.08	8.30	7.13	0.05	-1.18	40
PC-6	Making electronic resources accessible from my home or office	7.40	8.57	6.74	-0.67	-1.83	42
Overall:		6.63	8.05	7.09	0.45	-0.96	43

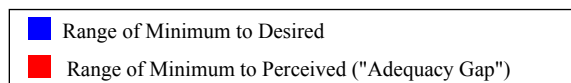
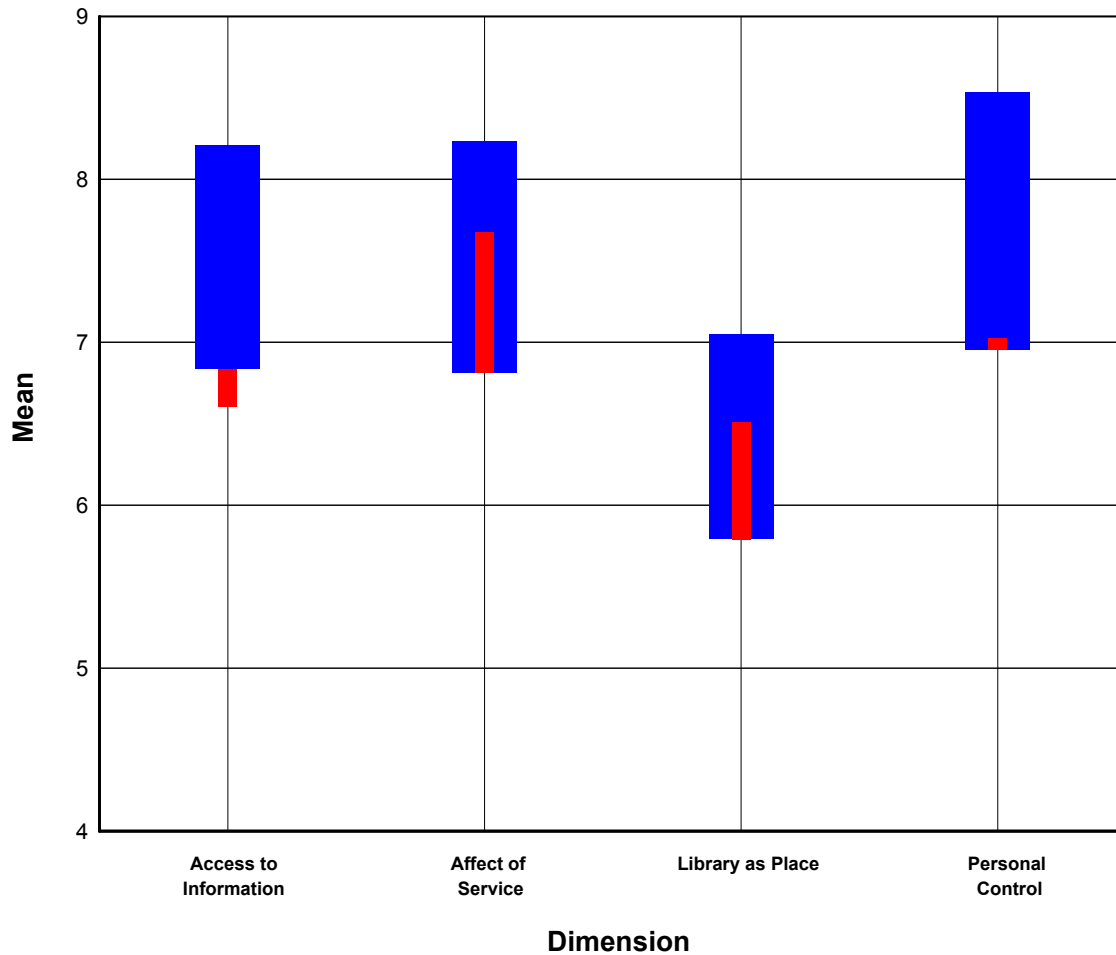
Language: American English
Institution Type: College or University
Consortium: None
User Group: Faculty

ID	Question Text	Minimum SD	Desired SD	Perceived SD	Adequacy SD	Superiority SD	n
Access to Information							
AI-1	Print and/or electronic journal collections I require for my work	1.61	0.93	2.22	3.04	2.52	41
AI-2	Convenient service hours	1.61	1.22	1.47	1.92	1.74	42
AI-3	The printed library materials I need for my work	1.33	0.86	1.85	2.14	2.13	42
AI-4	The electronic information resources I need	1.58	1.49	1.38	2.02	1.87	43
AI-5	Timely document delivery/interlibrary loan	1.32	0.89	1.56	2.09	1.63	41
Affect of Service							
AS-1	Employees who instill confidence in users	1.89	1.19	1.49	1.87	1.34	40
AS-2	Readiness to respond to users' questions	1.46	1.24	1.16	1.39	0.98	43
AS-3	Willingness to help users	1.52	1.00	1.22	1.72	1.01	43
AS-4	Dependability in handling users' service problems	1.65	1.27	1.04	1.52	1.21	42
AS-5	Giving users individual attention	1.66	1.35	1.22	1.61	1.02	42
AS-6	Employees who have the knowledge to answer user questions	1.40	1.00	1.13	1.35	1.01	43
AS-7	Employees who are consistently courteous	1.70	1.21	1.05	1.70	1.22	43
AS-8	Employees who deal with users in a caring fashion	1.71	1.21	1.06	1.59	1.09	42
AS-9	Employees who understand the needs of their users	1.44	1.25	1.59	1.79	1.52	43
Library as Place							
LP-1	Quiet space for individual activities	2.66	2.52	1.80	2.93	2.67	37
LP-2	A comfortable and inviting location	1.81	1.41	1.47	1.88	1.62	42
LP-3	Library space that inspires study and learning	1.96	1.73	1.76	2.06	1.88	38
LP-4	Community space for group learning and group study	2.29	2.42	2.11	2.40	2.31	32
LP-5	A getaway for study, learning, or research	2.26	2.07	1.89	2.22	2.05	36
Personal Control							
PC-1	Easy-to-use access tools that allow me to find things on my own	1.82	1.34	1.88	2.32	1.99	43
PC-2	Convenient access to library collections	1.68	1.10	1.28	1.88	1.34	43
PC-3	A library Web site enabling me to locate information on my own	1.69	1.05	1.56	2.38	1.67	43
PC-4	Modern equipment that lets me easily access needed information	1.36	1.01	1.07	1.57	1.23	42
PC-5	Making information easily accessible for independent use	1.58	1.07	1.20	1.52	1.22	40
PC-6	Making electronic resources accessible from my home or office	1.43	1.09	1.93	2.63	2.02	42
Overall:		1.27	0.90	0.94	1.40	0.89	43

Language: American English
Institution Type: College or University
Consortium: None
User Group: Faculty

6.3 Core Question Dimensions Summary for Faculty

On the chart below, scores for each dimension of library service quality have been plotted graphically. The blue bars represent the range of minimum to desired scores for each dimension. The interior red bars represent the range of minimum to perceived scores (the service adequacy gap) for each dimension of library service quality.



Language: American English
 Institution Type: College or University
 Consortium: None
 User Group: Faculty

The following table displays mean scores for each dimension of library service quality measured by the LibQUAL+™ survey, where n is the number of respondents for each particular dimension. (For a more detailed explanation of the headings, see the Introduction to this notebook.) A complete listing of the survey questions and their dimensions can be found in Appendix B.

Dimension	Minimum Mean	Desired Mean	Perceived Mean	Adequacy Mean	Superiority Mean	n
Access to Information	6.84	8.21	6.60	-0.23	-1.67	43
Affect of Service	6.81	8.23	7.67	0.88	-0.53	43
Library as Place	5.79	7.05	6.51	0.81	-0.60	43
Personal Control	6.95	8.53	7.02	0.05	-1.40	43
Overall:	6.63	8.05	7.09	0.45	-0.96	43

The following table displays standard deviation for each dimension of library service quality measured by the LibQUAL+™ survey, where n is the number of respondents for each particular dimension. (For a more detailed explanation of the headings, see the Introduction to this notebook.) A complete listing of the survey questions and their dimensions can be found in Appendix B.

Dimension	Minimum SD	Desired SD	Perceived SD	Adequacy SD	Superiority SD	n
Access to Information	1.21	0.86	1.26	1.74	1.39	43
Affect of Service	1.35	0.95	1.04	1.24	0.85	43
Library as Place	1.93	1.90	1.82	1.75	1.65	43
Personal Control	1.43	0.88	1.24	1.75	1.22	43
Overall:	1.27	0.90	0.94	1.40	0.89	43

Language: American English
 Institution Type: College or University
 Consortium: None
 User Group: Faculty

6.4 General Satisfaction Questions Summary for Faculty

This table displays the mean score and standard deviation for each of the general satisfaction questions: Satisfaction with Treatment, Satisfaction with Support, and Satisfaction with Overall Quality of Service, where n is the number of respondents for each particular question. These scores are calculated from responses to the general satisfaction questions on the LibQUAL+™ survey, in which respondents rated their levels of general satisfaction on a scale from 1-9.

Satisfaction Question	Mean	SD	n
In general, I am satisfied with the way in which I am treated at the library.	7.93	1.10	43
In general, I am satisfied with library support for my learning, research, and/or teaching needs.	6.67	1.78	43
How would you rate the overall quality of the service provided by the library?	7.21	1.10	43

6.5 Information Literacy Outcomes Questions Summary for Faculty

This table displays the mean score and standard deviation for each of the information literacy outcomes questions, where n is the number of respondents for each particular question. These scores are calculated from responses to the information literacy outcomes questions on the LibQUAL+™ survey, in which respondents rated their levels of general satisfaction on a scale from 1-9 with 1 being "strongly disagree" and 9 representing "strongly agree".

Information Literacy Outcomes Questions	Mean	SD	n
The library helps me stay abreast of developments in my field(s) of interest.	5.79	1.86	43
The library aids my advancement in my academic discipline.	5.91	1.74	43
The library enables me to be more efficient in my academic pursuits.	6.05	1.81	43
The library helps me distinguish between trustworthy and untrustworthy information.	5.07	2.02	43
The library provides me with the information skills I need in my work or study.	5.53	2.13	43

Language: American English

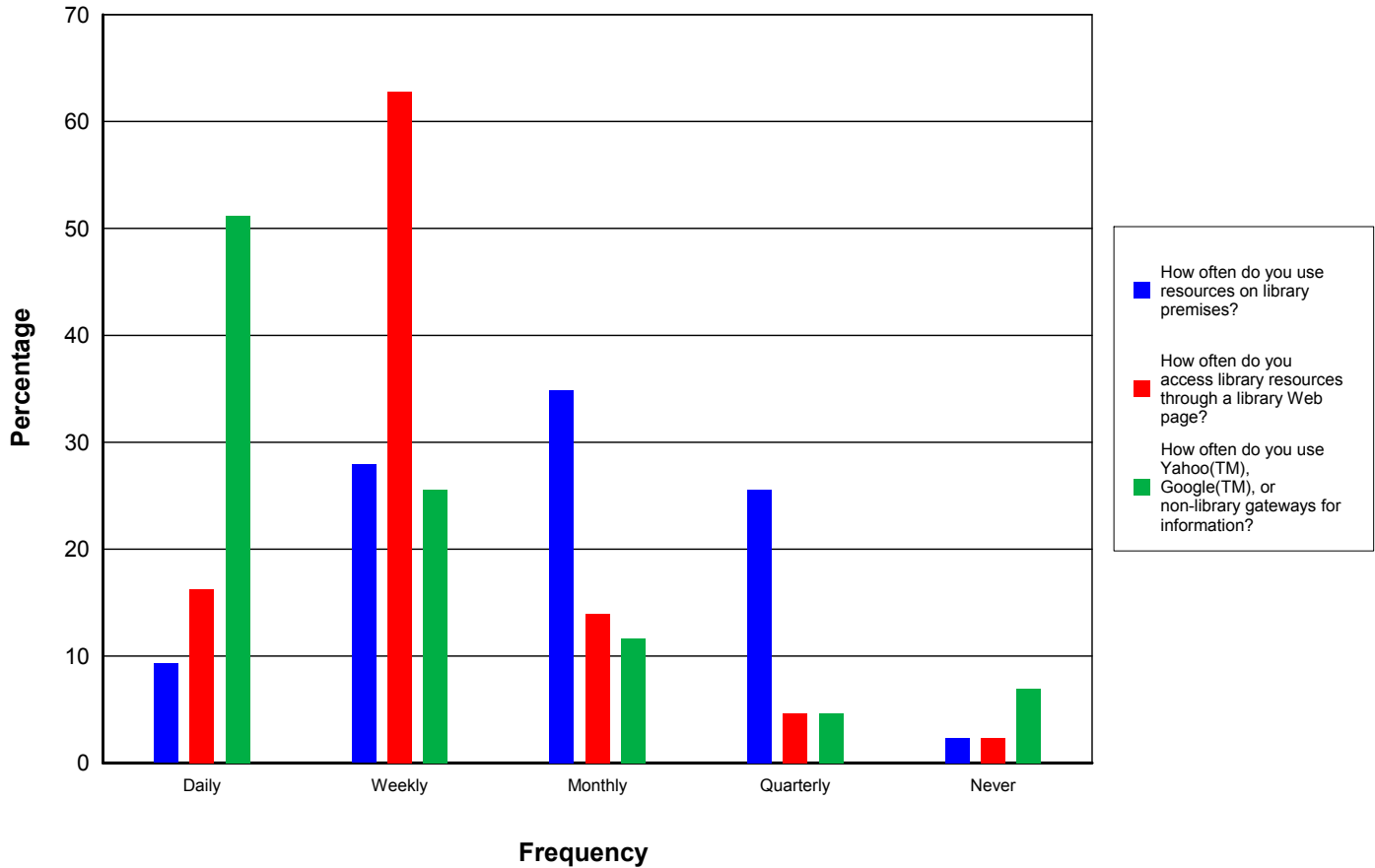
Institution Type: College or University

Consortium: None

User Group: Faculty

6.6 Library Use Summary for Faculty

This chart shows a graphic representation of library use (both on the premises and electronically), as well as use of non-library information gateways such as Yahoo™ and Google™. Bars represent the frequency with which respondents report using these resources: Daily, Weekly, Monthly, Quarterly, or Never. The table below the graphic displays the number and percentage of respondents who selected each option.



	Daily	Weekly	Monthly	Quarterly	Never	n / %
How often do you use resources on library premises?	4 9.30%	12 27.91%	15 34.88%	11 25.58%	1 2.33%	43 100.00%
How often do you access library resources through a library Web page?	7 16.28%	27 62.79%	6 13.95%	2 4.65%	1 2.33%	43 100.00%
How often do you use Yahoo(TM), Google(TM), or non-library gateways for information?	22 51.16%	11 25.58%	5 11.63%	2 4.65%	3 6.98%	43 100.00%

Language: American English
 Institution Type: College or University
 Consortium: None
 User Group: Faculty

7 Library Staff Summary

7.1 Demographic Summary for Library Staff

7.1.1 Respondent Profile for Library Staff by Age

This table shows a breakdown of survey respondents by age; both the number of respondents (n) and the percentage of the total number of respondents represented by each age group are displayed. Ages are grouped into six categories: Under 18, 18-22, 23-30, 31-45, 46-65, and Over 65.

Age	Respondents n	Respondents %
Under 18	0	0.00%
18 - 22	0	0.00%
23 - 30	5	26.32%
31 - 45	3	15.79%
46 - 65	11	57.89%
Over 65	0	0.00%
Total:	19	100.00%

7.1.2 Respondent Profile for Library Staff by Sex

The table below shows a breakdown of survey respondents by sex, based on user responses to the demographic questions at the end of the survey instrument and the demographic data provided by institutions through the online Demographics Questionnaire*. The number and percentage for each sex are given for the general population and for survey respondents.

*Note: Participating institutions were not required to complete the Demographics Questionnaire. When population data is missing or incomplete, it is because this data was not provided to ARL.

Sex	Respondents n	Respondents %
Male	6	31.58%
Female	13	68.42%
Total:	19	100.00%

Language: American English

Institution Type: College or University

Consortium: None

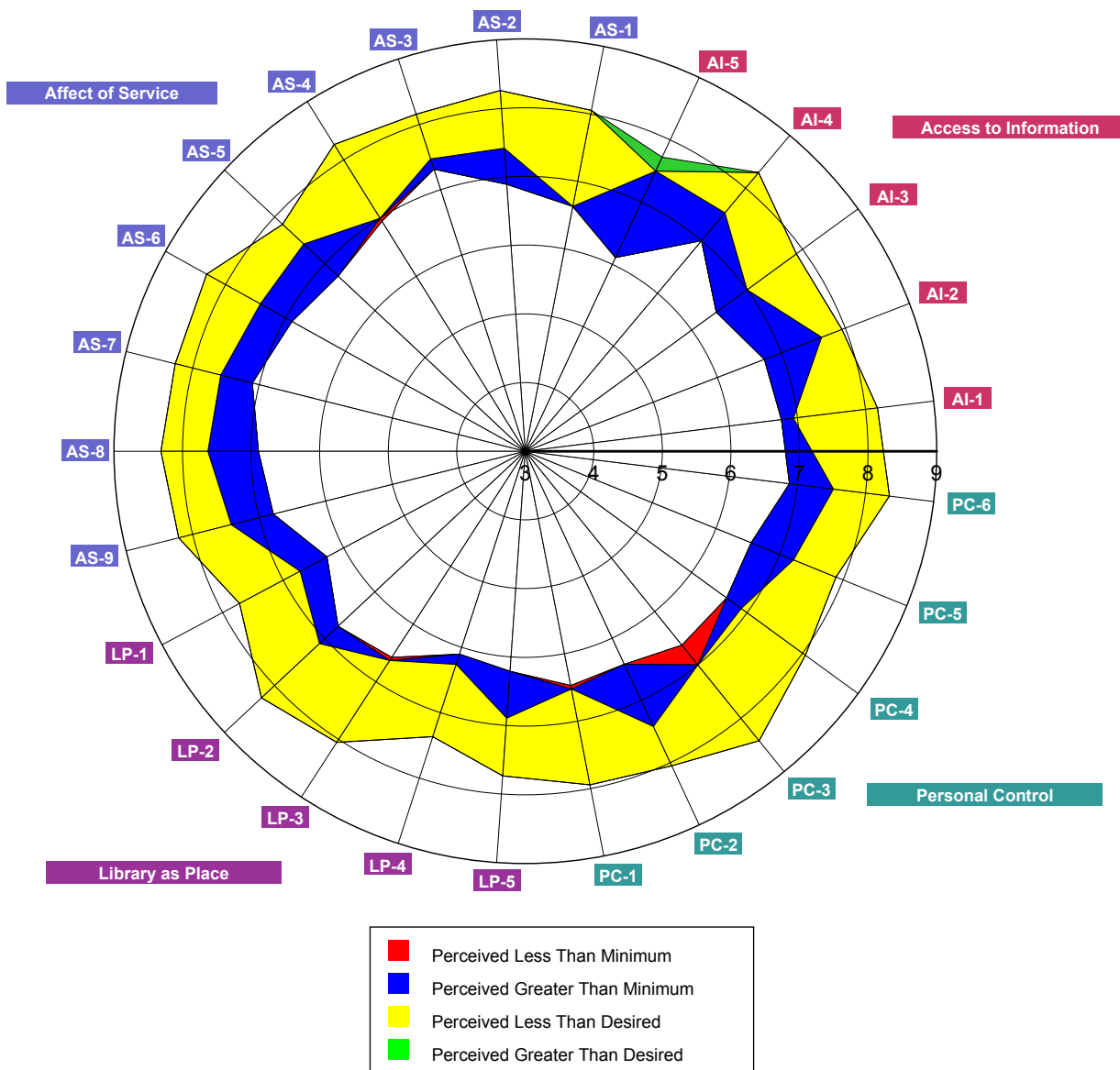
User Group: Library Staff

7.2 Core Questions Summary for Library Staff

This radar chart shows aggregate results for the 25 core survey questions. Each axis represents one question (a code to identify each question is displayed at the outer point of each axis). While questions for each dimension of library service quality are scattered randomly throughout the survey, here they are grouped in quadrants: Affect of Service, Access to Information, Library as Place, and Personal Control.

On each axis, respondents' minimum, desired, and perceived levels of service quality are plotted, and the resulting "gaps" between the three levels (representing service adequacy or service superiority) are shaded in blue, yellow, green, and red.

The two following tables show mean scores and standard deviations for each question, where n is the number of respondents for each particular question. (For a more detailed explanation of the headings, see the Introduction to this notebook.)



Language: American English
 Institution Type: College or University
 Consortium: None
 User Group: Library Staff

ID	Question Text	Minimum Mean	Desired Mean	Perceived Mean	Adequacy Mean	Superiority Mean	n
Access to Information							
AI-1	Print and/or electronic journal collections I require for my work	6.76	8.18	6.94	0.18	-1.24	17
AI-2	Convenient service hours	6.74	7.95	7.63	0.89	-0.32	19
AI-3	The printed library materials I need for my work	6.44	7.89	7.00	0.56	-0.89	18
AI-4	The electronic information resources I need	7.00	8.29	7.53	0.53	-0.76	17
AI-5	Timely document delivery/interlibrary loan	6.11	7.50	7.72	1.61	0.22	18
Affect of Service							
AS-1	Employees who instill confidence in users	6.63	8.05	6.63	0.00	-1.42	19
AS-2	Readiness to respond to users' questions	6.89	8.26	7.42	0.53	-0.84	19
AS-3	Willingness to help users	7.32	8.16	7.47	0.16	-0.68	19
AS-4	Dependability in handling users' service problems	7.00	8.26	6.95	-0.05	-1.32	19
AS-5	Giving users individual attention	6.74	7.84	7.42	0.68	-0.42	19
AS-6	Employees who have the knowledge to answer user questions	6.89	8.32	7.42	0.53	-0.89	19
AS-7	Employees who are consistently courteous	7.11	8.26	7.58	0.47	-0.68	19
AS-8	Employees who deal with users in a caring fashion	6.89	8.32	7.63	0.74	-0.68	19
AS-9	Employees who understand the needs of their users	6.79	8.21	7.42	0.63	-0.79	19
Library as Place							
LP-1	Quiet space for individual activities	6.28	7.72	6.72	0.44	-1.00	18
LP-2	A comfortable and inviting location	6.74	8.26	7.11	0.37	-1.16	19
LP-3	Library space that inspires study and learning	6.63	8.05	6.58	-0.05	-1.47	19
LP-4	Community space for group learning and group study	6.11	7.37	6.26	0.16	-1.11	19
LP-5	A getaway for study, learning, or research	6.21	7.74	6.89	0.68	-0.84	19
Personal Control							
PC-1	Easy-to-use access tools that allow me to find things on my own	6.53	7.95	6.47	-0.05	-1.47	19
PC-2	Convenient access to library collections	6.42	8.05	7.42	1.00	-0.63	19
PC-3	A library Web site enabling me to locate information on my own	7.00	8.42	6.63	-0.37	-1.79	19
PC-4	Modern equipment that lets me easily access needed information	6.63	8.05	6.89	0.26	-1.16	19
PC-5	Making information easily accessible for independent use	6.56	7.89	7.22	0.67	-0.67	18
PC-6	Making electronic resources accessible from my home or office	6.88	8.35	7.53	0.65	-0.82	17
Overall:		6.67	8.05	7.13	0.46	-0.92	19

Language: American English

Institution Type: College or University

Consortium: None

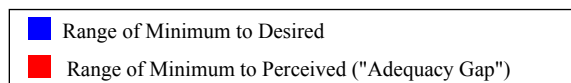
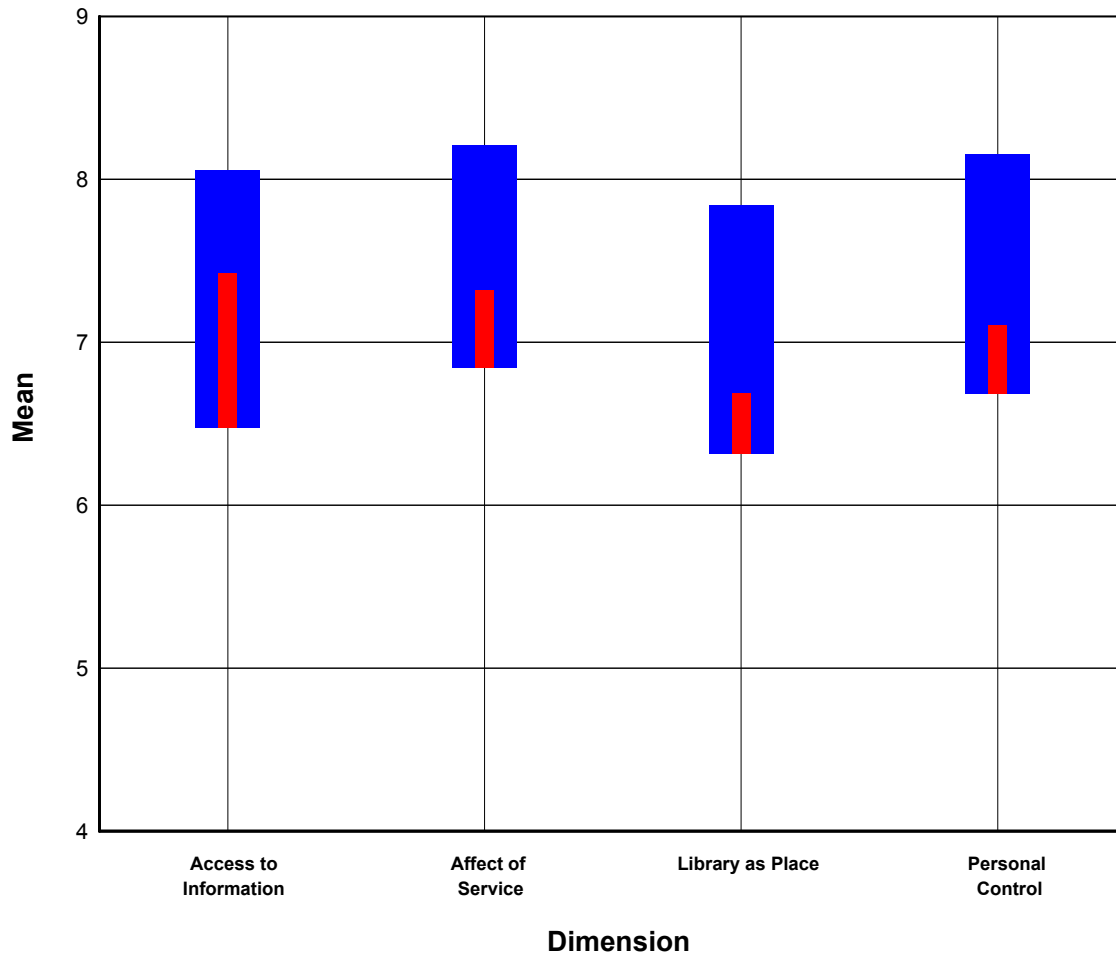
User Group: Library Staff

ID	Question Text	Minimum SD	Desired SD	Perceived SD	Adequacy SD	Superiority SD	n
Access to Information							
AI-1	Print and/or electronic journal collections I require for my work	1.15	0.73	0.75	1.07	0.97	17
AI-2	Convenient service hours	1.48	1.18	0.83	1.15	1.16	19
AI-3	The printed library materials I need for my work	1.69	0.96	1.03	1.82	1.13	18
AI-4	The electronic information resources I need	1.32	0.69	0.72	1.55	0.75	17
AI-5	Timely document delivery/interlibrary loan	1.68	1.58	1.02	1.69	1.31	18
Affect of Service							
AS-1	Employees who instill confidence in users	1.61	0.85	0.90	1.49	0.90	19
AS-2	Readiness to respond to users' questions	1.37	1.05	0.96	1.31	0.90	19
AS-3	Willingness to help users	1.42	0.83	1.02	1.46	1.00	19
AS-4	Dependability in handling users' service problems	1.33	0.73	0.85	1.43	0.89	19
AS-5	Giving users individual attention	1.52	0.96	1.17	1.29	1.02	19
AS-6	Employees who have the knowledge to answer user questions	1.24	0.67	0.84	1.26	0.94	19
AS-7	Employees who are consistently courteous	1.24	0.65	0.84	1.31	0.89	19
AS-8	Employees who deal with users in a caring fashion	1.24	0.75	0.90	1.24	0.82	19
AS-9	Employees who understand the needs of their users	1.32	0.85	0.90	1.42	0.85	19
Library as Place							
LP-1	Quiet space for individual activities	1.78	1.60	1.23	2.33	2.28	18
LP-2	A comfortable and inviting location	1.59	0.73	1.15	1.83	1.26	19
LP-3	Library space that inspires study and learning	1.46	0.62	1.07	2.01	1.39	19
LP-4	Community space for group learning and group study	1.63	1.38	1.59	1.86	1.94	19
LP-5	A getaway for study, learning, or research	1.65	1.37	1.05	1.49	1.17	19
Personal Control							
PC-1	Easy-to-use access tools that allow me to find things on my own	1.54	0.91	1.43	1.87	1.50	19
PC-2	Convenient access to library collections	1.30	0.85	1.07	1.29	1.07	19
PC-3	A library Web site enabling me to locate information on my own	1.29	0.69	1.54	1.77	1.78	19
PC-4	Modern equipment that lets me easily access needed information	1.42	0.71	0.99	1.73	0.96	19
PC-5	Making information easily accessible for independent use	1.15	0.76	0.88	1.33	0.69	18
PC-6	Making electronic resources accessible from my home or office	1.41	0.70	0.62	1.58	1.01	17
Overall:		1.12	0.53	0.66	1.13	0.55	19

Language: American English
Institution Type: College or University
Consortium: None
User Group: Library Staff

7.3 Core Question Dimensions Summary for Library Staff

On the chart below, scores for each dimension of library service quality have been plotted graphically. The blue bars represent the range of minimum to desired scores for each dimension. The interior red bars represent the range of minimum to perceived scores (the service adequacy gap) for each dimension of library service quality.



Language: American English
 Institution Type: College or University
 Consortium: None
 User Group: Library Staff

The following table displays mean scores for each dimension of library service quality measured by the LibQUAL+™ survey, where n is the number of respondents for each particular dimension. (For a more detailed explanation of the headings, see the Introduction to this notebook.) A complete listing of the survey questions and their dimensions can be found in Appendix B.

Dimension	Minimum Mean	Desired Mean	Perceived Mean	Adequacy Mean	Superiority Mean	n
Access to Information	6.47	8.05	7.42	1.00	-0.58	19
Affect of Service	6.84	8.21	7.32	0.42	-0.79	19
Library as Place	6.32	7.84	6.68	0.42	-1.11	19
Personal Control	6.68	8.16	7.11	0.42	-1.21	19
Overall:	6.67	8.05	7.13	0.46	-0.92	19

The following table displays standard deviation for each dimension of library service quality measured by the LibQUAL+™ survey, where n is the number of respondents for each particular dimension. (For a more detailed explanation of the headings, see the Introduction to this notebook.) A complete listing of the survey questions and their dimensions can be found in Appendix B.

Dimension	Minimum SD	Desired SD	Perceived SD	Adequacy SD	Superiority SD	n
Access to Information	1.26	0.78	0.61	1.15	0.69	19
Affect of Service	1.30	0.71	0.89	1.17	0.71	19
Library as Place	1.34	0.90	0.82	1.50	0.88	19
Personal Control	1.25	0.60	0.94	1.46	0.92	19
Overall:	1.12	0.53	0.66	1.13	0.55	19

Language: American English
 Institution Type: College or University
 Consortium: None
 User Group: Library Staff

7.4 General Satisfaction Questions Summary for Library Staff

This table displays the mean score and standard deviation for each of the general satisfaction questions: Satisfaction with Treatment, Satisfaction with Support, and Satisfaction with Overall Quality of Service, where n is the number of respondents for each particular question. These scores are calculated from responses to the general satisfaction questions on the LibQUAL+™ survey, in which respondents rated their levels of general satisfaction on a scale from 1-9.

Satisfaction Question	Mean	SD	n
In general, I am satisfied with the way in which I am treated at the library.	7.68	0.82	19
In general, I am satisfied with library support for my learning, research, and/or teaching needs.	7.37	0.90	19
How would you rate the overall quality of the service provided by the library?	7.42	0.61	19

7.5 Information Literacy Outcomes Questions Summary for Library Staff

This table displays the mean score and standard deviation for each of the information literacy outcomes questions, where n is the number of respondents for each particular question. These scores are calculated from responses to the information literacy outcomes questions on the LibQUAL+™ survey, in which respondents rated their levels of general satisfaction on a scale from 1-9 with 1 being "strongly disagree" and 9 representing "strongly agree".

Information Literacy Outcomes Questions	Mean	SD	n
The library helps me stay abreast of developments in my field(s) of interest.	6.68	1.29	19
The library aids my advancement in my academic discipline.	7.21	1.03	19
The library enables me to be more efficient in my academic pursuits.	7.16	0.83	19
The library helps me distinguish between trustworthy and untrustworthy information.	6.42	1.26	19
The library provides me with the information skills I need in my work or study.	6.89	1.10	19

Language: American English

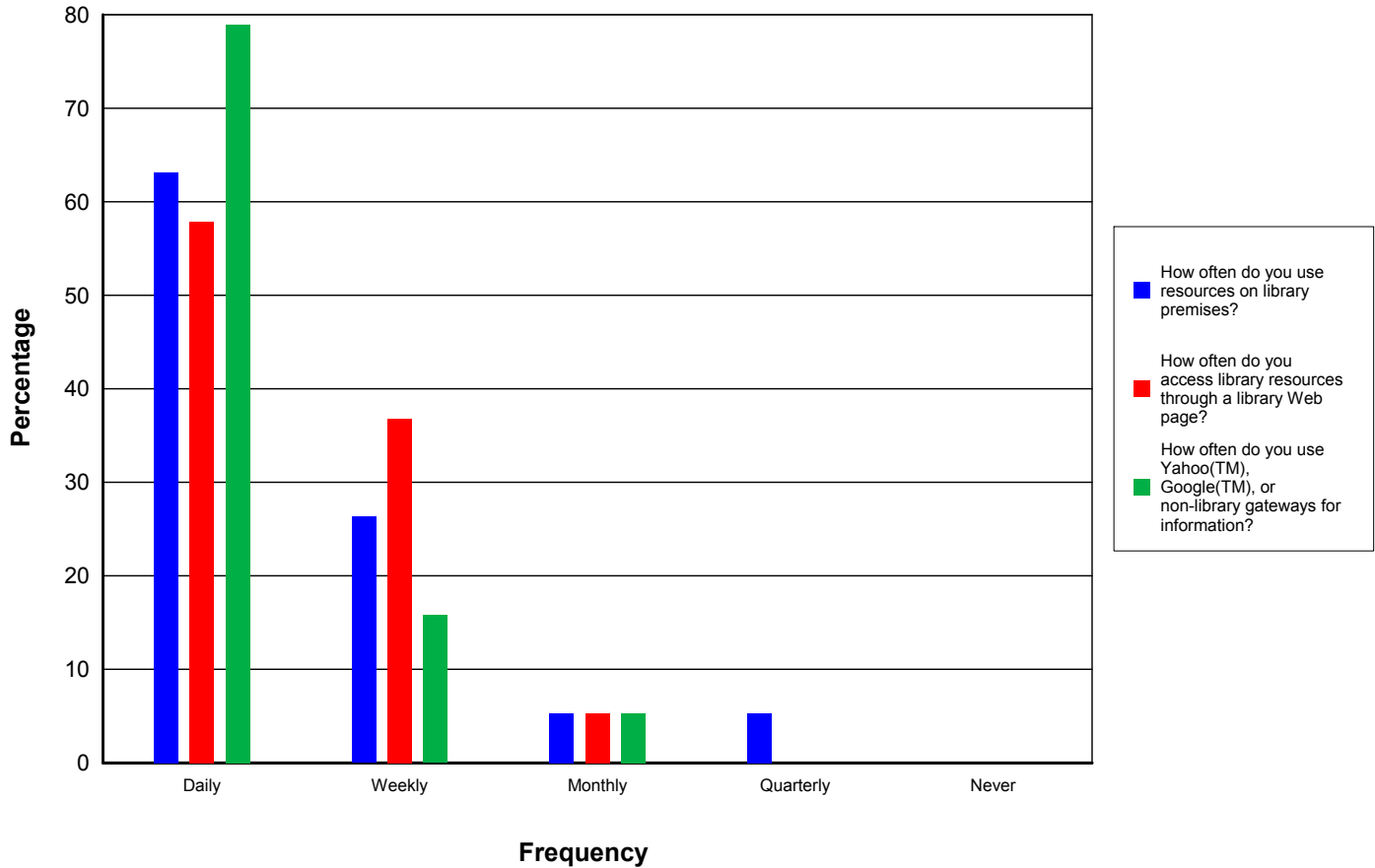
Institution Type: College or University

Consortium: None

User Group: Library Staff

7.6 Library Use Summary for Library Staff

This chart shows a graphic representation of library use (both on the premises and electronically), as well as use of non-library information gateways such as Yahoo™ and Google™. Bars represent the frequency with which respondents report using these resources: Daily, Weekly, Monthly, Quarterly, or Never. The table below the graphic displays the number and percentage of respondents who selected each option.



	Daily	Weekly	Monthly	Quarterly	Never	n / %
How often do you use resources on library premises?	12 63.16%	5 26.32%	1 5.26%	1 5.26%	0 0.00%	19 100.00%
How often do you access library resources through a library Web page?	11 57.89%	7 36.84%	1 5.26%	0 0.00%	0 0.00%	19 100.00%
How often do you use Yahoo(TM), Google(TM), or non-library gateways for information?	15 78.95%	3 15.79%	1 5.26%	0 0.00%	0 0.00%	19 100.00%

Language: American English
 Institution Type: College or University
 Consortium: None
 User Group: Library Staff

8 Staff Summary

8.1 Demographic Summary for Staff

8.1.1 Respondent Profile for Staff by Age

This table shows a breakdown of survey respondents by age; both the number of respondents (n) and the percentage of the total number of respondents represented by each age group are displayed. Ages are grouped into six categories: Under 18, 18-22, 23-30, 31-45, 46-65, and Over 65.

Age	Respondents n	Respondents %
Under 18	1	5.00%
18 - 22	0	0.00%
23 - 30	0	0.00%
31 - 45	7	35.00%
46 - 65	12	60.00%
Over 65	0	0.00%
Total:	20	100.00%

8.1.2 Respondent Profile for Staff by Sex

The table below shows a breakdown of survey respondents by sex, based on user responses to the demographic questions at the end of the survey instrument and the demographic data provided by institutions through the online Demographics Questionnaire*. The number and percentage for each sex are given for the general population and for survey respondents.

*Note: Participating institutions were not required to complete the Demographics Questionnaire. When population data is missing or incomplete, it is because this data was not provided to ARL.

Sex	Respondents n	Respondents %
Male	10	50.00%
Female	10	50.00%
Total:	20	100.00%

Language: American English

Institution Type: College or University

Consortium: None

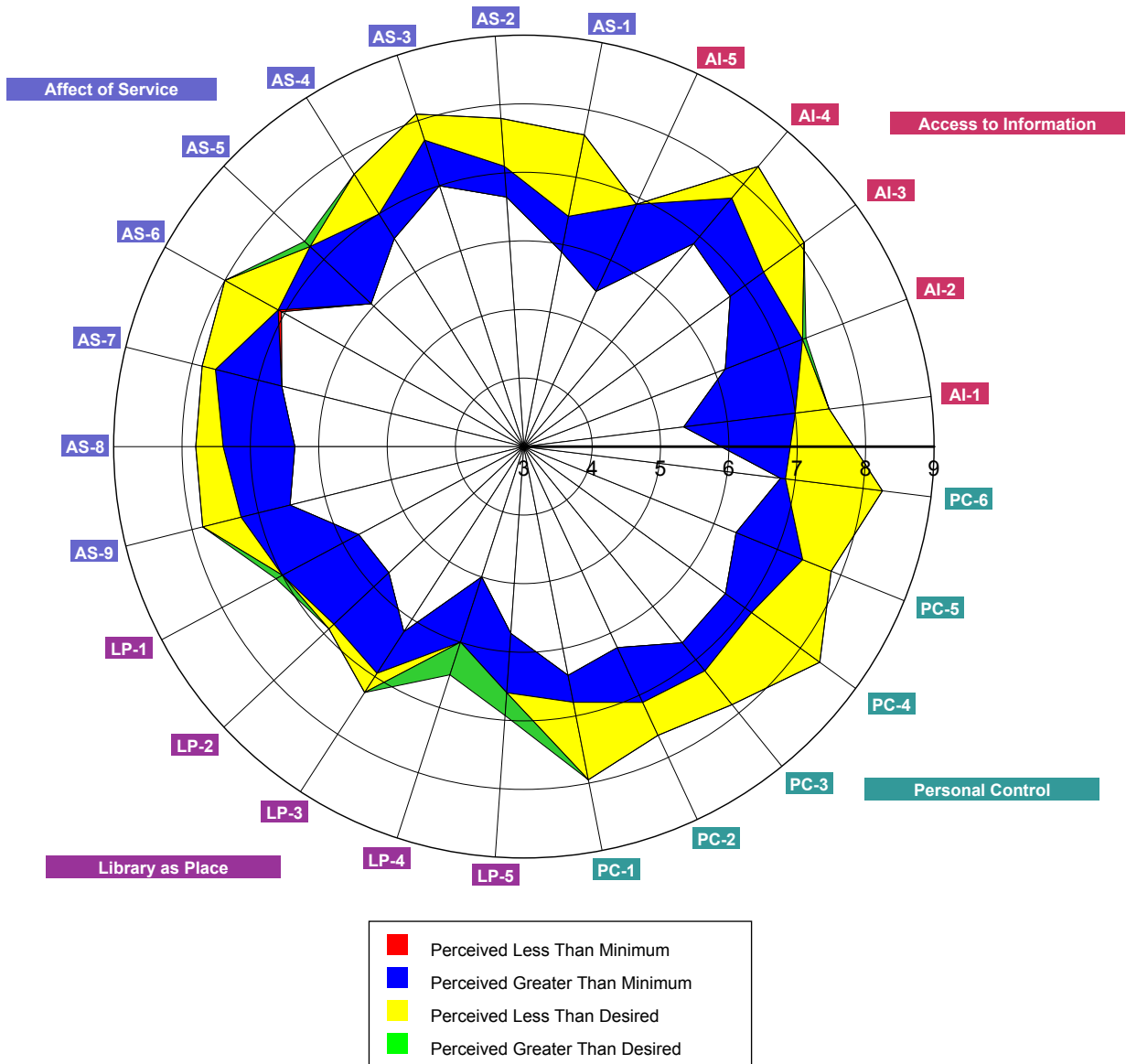
User Group: Staff

8.2 Core Questions Summary for Staff

This radar chart shows aggregate results for the 25 core survey questions. Each axis represents one question (a code to identify each question is displayed at the outer point of each axis). While questions for each dimension of library service quality are scattered randomly throughout the survey, here they are grouped in quadrants: Affect of Service, Access to Information, Library as Place, and Personal Control.

On each axis, respondents' minimum, desired, and perceived levels of service quality are plotted, and the resulting "gaps" between the three levels (representing service adequacy or service superiority) are shaded in blue, yellow, green, and red.

The two following tables show mean scores and standard deviations for each question, where n is the number of respondents for each particular question. (For a more detailed explanation of the headings, see the Introduction to this notebook.)



Language: American English
 Institution Type: College or University
 Consortium: None
 User Group: Staff

ID	Question Text	Minimum Mean	Desired Mean	Perceived Mean	Adequacy Mean	Superiority Mean	n
Access to Information							
AI-1	Print and/or electronic journal collections I require for my work	5.36	7.50	7.00	1.64	-0.50	14
AI-2	Convenient service hours	6.16	7.37	7.42	1.26	0.05	19
AI-3	The printed library materials I need for my work	6.73	8.07	7.33	0.60	-0.73	15
AI-4	The electronic information resources I need	6.87	8.33	7.73	0.87	-0.60	15
AI-5	Timely document delivery/interlibrary loan	5.50	6.90	6.90	1.40	0.00	10
Affect of Service							
AS-1	Employees who instill confidence in users	5.89	7.63	6.42	0.53	-1.21	19
AS-2	Readiness to respond to users' questions	6.65	7.80	7.10	0.45	-0.70	20
AS-3	Willingness to help users	7.00	8.10	7.70	0.70	-0.40	20
AS-4	Dependability in handling users' service problems	6.58	7.68	7.00	0.42	-0.68	19
AS-5	Giving users individual attention	6.06	7.28	7.39	1.33	0.11	18
AS-6	Employees who have the knowledge to answer user questions	7.11	8.00	7.06	-0.06	-0.94	18
AS-7	Employees who are consistently courteous	6.65	7.85	7.65	1.00	-0.20	20
AS-8	Employees who deal with users in a caring fashion	6.35	7.80	7.40	1.05	-0.40	20
AS-9	Employees who understand the needs of their users	6.53	7.84	7.26	0.74	-0.58	19
Library as Place							
LP-1	Quiet space for individual activities	5.74	7.00	7.11	1.37	0.11	19
LP-2	A comfortable and inviting location	5.70	6.90	6.80	1.10	-0.10	20
LP-3	Library space that inspires study and learning	6.22	7.28	6.94	0.72	-0.33	18
LP-4	Community space for group learning and group study	5.00	6.00	6.50	1.50	0.50	10
LP-5	A getaway for study, learning, or research	5.73	6.60	6.93	1.20	0.33	15
Personal Control							
PC-1	Easy-to-use access tools that allow me to find things on my own	6.40	7.95	6.80	0.40	-1.15	20
PC-2	Convenient access to library collections	6.24	7.65	7.12	0.88	-0.53	17
PC-3	A library Web site enabling me to locate information on my own	6.68	7.84	7.21	0.53	-0.63	19
PC-4	Modern equipment that lets me easily access needed information	6.65	8.35	7.12	0.47	-1.24	17
PC-5	Making information easily accessible for independent use	6.35	7.85	7.40	1.05	-0.45	20
PC-6	Making electronic resources accessible from my home or office	6.79	8.29	6.86	0.07	-1.43	14
Overall:		6.32	7.64	7.17	0.85	-0.46	20

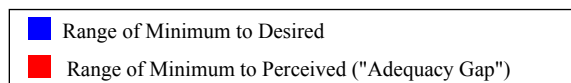
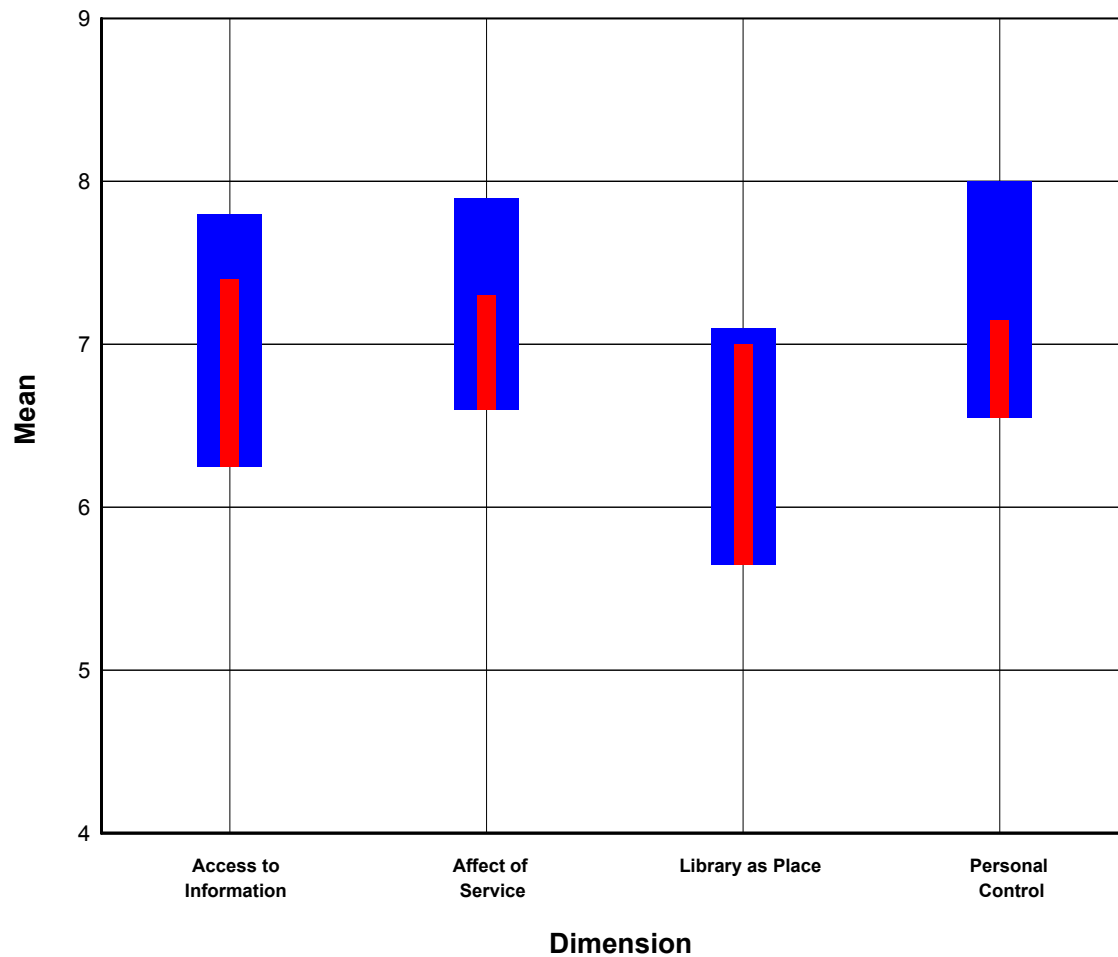
Language: American English
Institution Type: College or University
Consortium: None
User Group: Staff

ID	Question Text	Minimum SD	Desired SD	Perceived SD	Adequacy SD	Superiority SD	n
Access to Information							
AI-1	Print and/or electronic journal collections I require for my work	1.95	2.03	1.24	2.06	2.14	14
AI-2	Convenient service hours	2.17	1.21	1.30	1.69	1.13	19
AI-3	The printed library materials I need for my work	1.22	0.88	1.18	1.45	1.49	15
AI-4	The electronic information resources I need	1.41	0.72	1.03	1.46	0.91	15
AI-5	Timely document delivery/interlibrary loan	2.12	1.91	1.20	1.65	1.70	10
Affect of Service							
AS-1	Employees who instill confidence in users	0.99	1.26	1.39	1.68	1.51	19
AS-2	Readiness to respond to users' questions	1.42	1.06	1.41	1.61	1.42	20
AS-3	Willingness to help users	1.41	1.07	1.03	1.38	1.35	20
AS-4	Dependability in handling users' service problems	1.57	1.20	1.29	1.92	1.80	19
AS-5	Giving users individual attention	1.66	1.56	1.04	1.14	0.96	18
AS-6	Employees who have the knowledge to answer user questions	1.18	1.14	1.43	1.73	1.80	18
AS-7	Employees who are consistently courteous	1.84	1.35	1.42	1.52	1.47	20
AS-8	Employees who deal with users in a caring fashion	1.90	1.54	1.35	1.43	1.10	20
AS-9	Employees who understand the needs of their users	1.47	1.21	1.24	1.48	1.12	19
Library as Place							
LP-1	Quiet space for individual activities	2.31	2.29	1.56	2.14	1.97	19
LP-2	A comfortable and inviting location	2.03	1.74	1.40	1.37	1.33	20
LP-3	Library space that inspires study and learning	1.86	1.93	1.39	1.64	1.61	18
LP-4	Community space for group learning and group study	2.36	2.54	1.78	1.84	1.96	10
LP-5	A getaway for study, learning, or research	2.25	2.32	1.67	1.74	1.76	15
Personal Control							
PC-1	Easy-to-use access tools that allow me to find things on my own	1.35	1.19	1.58	1.76	1.73	20
PC-2	Convenient access to library collections	1.56	1.17	1.27	1.62	1.42	17
PC-3	A library Web site enabling me to locate information on my own	1.57	1.17	1.27	1.65	1.26	19
PC-4	Modern equipment that lets me easily access needed information	1.11	0.70	1.58	1.74	1.64	17
PC-5	Making information easily accessible for independent use	1.31	1.09	0.99	1.47	1.36	20
PC-6	Making electronic resources accessible from my home or office	1.05	0.83	1.41	1.54	1.55	14
Overall:		1.27	0.99	0.93	0.99	0.81	20

Language: American English
Institution Type: College or University
Consortium: None
User Group: Staff

8.3 Core Question Dimensions Summary for Staff

On the chart below, scores for each dimension of library service quality have been plotted graphically. The blue bars represent the range of minimum to desired scores for each dimension. The interior red bars represent the range of minimum to perceived scores (the service adequacy gap) for each dimension of library service quality.



Language: American English
 Institution Type: College or University
 Consortium: None
 User Group: Staff

The following table displays mean scores for each dimension of library service quality measured by the LibQUAL+™ survey, where n is the number of respondents for each particular dimension. (For a more detailed explanation of the headings, see the Introduction to this notebook.) A complete listing of the survey questions and their dimensions can be found in Appendix B.

Dimension	Minimum Mean	Desired Mean	Perceived Mean	Adequacy Mean	Superiority Mean	n
Access to Information	6.25	7.80	7.40	1.35	-0.30	20
Affect of Service	6.60	7.90	7.30	0.70	-0.55	20
Library as Place	5.65	7.10	7.00	1.35	0.00	20
Personal Control	6.55	8.00	7.15	0.70	-0.95	20
Overall:	6.32	7.64	7.17	0.85	-0.46	20

The following table displays standard deviation for each dimension of library service quality measured by the LibQUAL+™ survey, where n is the number of respondents for each particular dimension. (For a more detailed explanation of the headings, see the Introduction to this notebook.) A complete listing of the survey questions and their dimensions can be found in Appendix B.

Dimension	Minimum SD	Desired SD	Perceived SD	Adequacy SD	Superiority SD	n
Access to Information	1.65	1.01	0.82	1.35	1.22	20
Affect of Service	1.27	0.97	1.13	1.22	1.19	20
Library as Place	1.90	1.97	1.30	1.50	1.49	20
Personal Control	1.23	1.08	1.18	1.38	1.19	20
Overall:	1.27	0.99	0.93	0.99	0.81	20

Language: American English
 Institution Type: College or University
 Consortium: None
 User Group: Staff

8.4 General Satisfaction Questions Summary for Staff

This table displays the mean score and standard deviation for each of the general satisfaction questions: Satisfaction with Treatment, Satisfaction with Support, and Satisfaction with Overall Quality of Service, where n is the number of respondents for each particular question. These scores are calculated from responses to the general satisfaction questions on the LibQUAL+™ survey, in which respondents rated their levels of general satisfaction on a scale from 1-9.

Satisfaction Question	Mean	SD	n
In general, I am satisfied with the way in which I am treated at the library.	7.15	1.35	20
In general, I am satisfied with library support for my learning, research, and/or teaching needs.	6.75	1.52	20
How would you rate the overall quality of the service provided by the library?	6.95	1.28	20

8.5 Information Literacy Outcomes Questions Summary for Staff

This table displays the mean score and standard deviation for each of the information literacy outcomes questions, where n is the number of respondents for each particular question. These scores are calculated from responses to the information literacy outcomes questions on the LibQUAL+™ survey, in which respondents rated their levels of general satisfaction on a scale from 1-9 with 1 being "strongly disagree" and 9 representing "strongly agree".

Information Literacy Outcomes Questions	Mean	SD	n
The library helps me stay abreast of developments in my field(s) of interest.	5.55	1.70	20
The library aids my advancement in my academic discipline.	5.35	1.84	20
The library enables me to be more efficient in my academic pursuits.	5.85	1.79	20
The library helps me distinguish between trustworthy and untrustworthy information.	5.60	2.23	20
The library provides me with the information skills I need in my work or study.	5.95	2.16	20

Language: American English

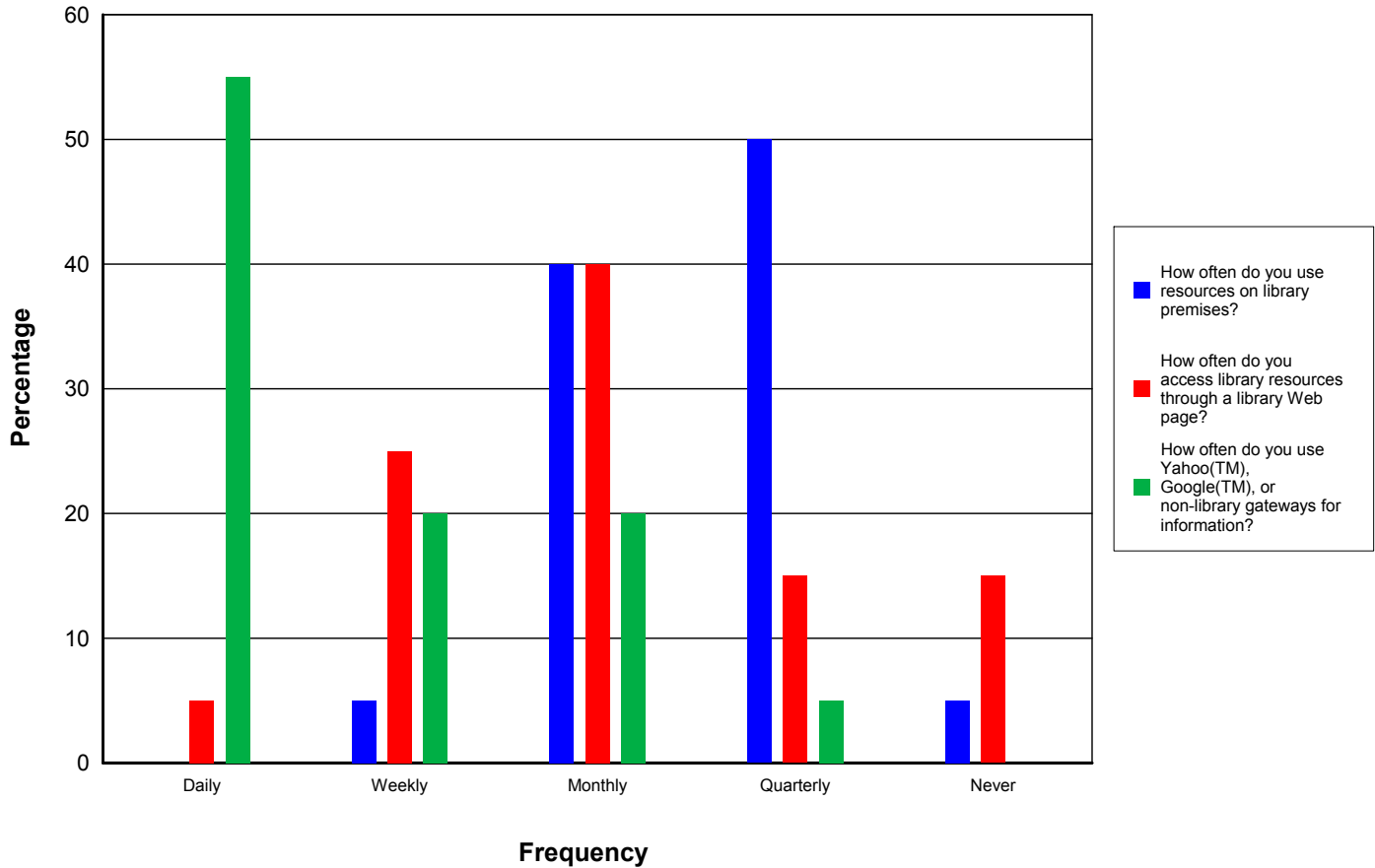
Institution Type: College or University

Consortium: None

User Group: Staff

8.6 Library Use Summary for Staff

This chart shows a graphic representation of library use (both on the premises and electronically), as well as use of non-library information gateways such as Yahoo™ and Google™. Bars represent the frequency with which respondents report using these resources: Daily, Weekly, Monthly, Quarterly, or Never. The table below the graphic displays the number and percentage of respondents who selected each option.



	Daily	Weekly	Monthly	Quarterly	Never	n / %
How often do you use resources on library premises?	0 0.00%	1 5.00%	8 40.00%	10 50.00%	1 5.00%	20 100.00%
How often do you access library resources through a library Web page?	1 5.00%	5 25.00%	8 40.00%	3 15.00%	3 15.00%	20 100.00%
How often do you use Yahoo(TM), Google(TM), or non-library gateways for information?	11 55.00%	4 20.00%	4 20.00%	1 5.00%	0 0.00%	20 100.00%

Language: American English
 Institution Type: College or University
 Consortium: None
 User Group: Staff

9 Appendix A: Print Version of the Survey

Survey Print Version - American English - College or University Libraries - Page 1



Welcome!

We are committed to improving your library services. Better understanding your expectations will help us tailor those services to your needs.

We are conducting this survey to measure library service quality and identify best practices through the Association of Research Libraries' LibQUAL+™ program. Partial funding for this project is provided by the U.S. Department of Education's Fund for the Improvement of Postsecondary Education (FIPSE).

Please answer all items. The survey will take about **10 minutes** to complete. Thank you for your participation!

Survey Print Version - American English - College or University Libraries - Page 2

Library Service Quality Survey

Important instructions:

Please rate the following statements (1 is lowest, 9 is highest) by indicating:

- **Minimum** -- the number that represents the *minimum* level of service that you would find acceptable.
- **Desired** -- the number that represents the level of service that *you personally want*.
- **Perceived** -- the number that represents the level of service that *you believe* our library currently provides.

You must EITHER rate all three columns OR identify the item as N/A (not applicable).

When it comes to...		My Minimum Service Level Is		My Desired Service Level Is		Perceived Service Performance Is		N/A												
		<i>low</i>	<i>high</i>	<i>low</i>	<i>high</i>	<i>low</i>	<i>high</i>													
1)	Employees who instill confidence in users	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9	N/A
2)	Easy-to-use access tools that allow me to find things on my own	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9	N/A
3)	Print and/or electronic journal collections I require for my work	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9	N/A
4)	Readiness to respond to users' questions	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9	N/A
5)	Quiet space for individual activities	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9	N/A
6)	Convenient access to library collections	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9	N/A
7)	Willingness to help users	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9	N/A
8)	Convenient service hours	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9	N/A
9)	A comfortable and inviting location	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9	N/A
10)	Dependability in handling users' service problems	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9	N/A

Survey Print Version - American English - College or University Libraries - Page 3

When it comes to...		My Minimum Service Level Is		My Desired Service Level Is		Perceived Service Performance Is		N/A																					
		<i>low</i>	<i>high</i>	<i>low</i>	<i>high</i>	<i>low</i>	<i>high</i>																						
11)	A library Web site enabling me to locate information on my own	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9	N/A
12)	Giving users individual attention	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9	N/A
13)	Library space that inspires study and learning	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9	N/A
14)	The printed library materials I need for my work	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9	N/A
15)	Employees who have the knowledge to answer user questions	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9	N/A
16)	Modern equipment that lets me easily access needed information	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9	N/A
17)	Employees who are consistently courteous	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9	N/A
18)	The electronic information resources I need	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9	N/A
19)	Community space for group learning and group study	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9	N/A
20)	Employees who deal with users in a caring fashion	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9	N/A
21)	Making information easily accessible for independent use	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9	N/A
22)	Timely document delivery/interlibrary loan	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9	N/A
23)	Employees who understand the needs of their users	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9	N/A
24)	A getaway for study, learning, or research	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9	N/A
25)	Making electronic resources accessible from my home or office	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9	N/A

Survey Print Version - American English - College or University Libraries - Page 5

Please indicate your library usage patterns:

How often do you use resources on library premises?

- Daily
- Weekly
- Monthly
- Quarterly
- Never

How often do you access library resources through a library Web page?

- Daily
- Weekly
- Monthly
- Quarterly
- Never

How often do you use Yahoo™, Google™, or non-library gateways for information?

- Daily
- Weekly
- Monthly
- Quarterly
- Never

Survey Print Version - American English - College or University Libraries - Page 6

Demographic Information

Your responses will only be used for aggregate survey analyses and we will treat them with the strictest confidentiality. Individual responses will not be given to anyone for any purpose. For each item, please select the value that most closely describes you.

1. Age:

- Under 18
- 18-22
- 23-30
- 31-45
- 46-65
- Over 65

2. Sex:

- Male
- Female

3. Discipline:

- Agriculture / Environmental Studies
- Architecture
- Business
- Communications / Journalism
- Education
- Engineering / Computer Science
- General Studies
- Health Sciences
- Humanities
- Law
- Military/Naval Science
- Performing & Fine Arts
- Science / Math
- Social Sciences / Psychology
- Undecided
- Other

Survey Print Version - American English - College or University Libraries - Page 7

4. Position: (check the one option that best describes you)

Undergraduate

- First year
- Second year
- Third year
- Fourth year
- Fifth year and above
- Non-degree

Graduate:

- Masters
- Doctoral
- Non-degree or Undecided

Faculty:

- Adjunct Faculty
- Assistant Professor
- Associate Professor
- Lecturer
- Professor
- Other Academic Status

Library Staff:

- Administrator
- Manager, Head of Unit
- Public Services
- Systems
- Technical Services
- Other

Staff:

- Research staff
- Other staff positions

Survey Print Version - American English - College or University Libraries - Page 8

Please enter any comments about library services below.

Please provide your e-mail address below if you would like to enter an optional drawing for a prize (not required).

E-mail address: _____

Thank you for completing the survey!

10 Appendix B: LibQUAL+™ Dimensions

LibQUAL+™ measures dimensions of perceived library quality - that is, each survey question is part of a broader category (a dimension), and scores within those categories are analyzed in order to derive more general information about library users' perceptions of service. These dimensions were first based on the original SERVQUAL survey instrument (the framework for the LibQUAL+™ survey tool; for more information on the origins of LibQUAL+™, go to <http://www.libqual.org/Publications/>). The LibQUAL+™ survey dimensions have evolved with each iteration, becoming more refined and focused for application specifically to the research library context. The 2003 iteration of the LibQUAL+™ survey has four dimensions. Dimensions for each iteration of the LibQUAL+™ survey are outlined below.

LibQUAL+™ 2000 Dimensions

The 2000 iteration of the LibQUAL+™ survey, which had 41 questions, measured eight separate dimensions:

- Assurance (the knowledge and courtesy of employees, and their ability to convey trust and confidence)
- Empathy (caring, individual attention)
- Library as Place (library as a sanctuary/haven or site for learning and contemplation)
- Reliability (ability to perform the promised service dependably and accurately)
- Responsiveness (willingness to help customers and provide prompt service)
- Tangibles (appearance of physical facilities, equipment, personnel and communications materials)
- Instructions/Custom Items
- Self-Reliance

LibQUAL+™ 2001 Dimensions

After careful analysis of the results from the 2000 survey, the dimensions were further refined to re-ground the SERVQUAL items in the library context. Four sub-dimensions resulted for the 2001 iteration:

- Service Affect (nine items, such as “willingness to help users”)
- Library as Place (five items, such as “a haven for quiet and solitude”)
- Personal Control (six items, such as “website enabling me to locate information on my own”), and
- Information Access (five items, such as “comprehensive print collections” and “convenient business hours”)

LibQUAL+™ 2002 Dimensions

For the 2002 iteration of the LibQUAL+™ survey, the dimensions were once again refined based on analysis of the previous year's results. While the same four dimensions were retained, their titles were changed slightly to more clearly represent the questions and data:

- Access to Information
- Affect of Service
- Library as Place
- Personal Control

LibQUAL+™ 2003 Dimensions

In this notebook the results are presented along the same dimensions that were derived from the 2002 iteration. The wording of six questions was changed slightly compared to 2002; a validity and reliability analysis, which will identify whether the same four dimensions are replicated in 2003, is forthcoming. The list below displays the dimensions used to present the results in the 2003 notebooks, along with the questions that relate to each dimension. (Note: the questions below are those used in the College and University implementation of the survey, American English version.)

Access to Information

3. [AI-1] Print and/or electronic journal collections I require for my work
8. [AI-2] Convenient service hours
14. [AI-3] The printed library materials I need for my work
18. [AI-4] The electronic information resources I need
22. [AI-5] Timely document delivery/interlibrary loan

Affect of Service

1. [AS-1] Employees who instill confidence in users
4. [AS-2] Readiness to respond to users' questions
7. [AS-3] Willingness to help users
10. [AS-4] Dependability in handling users' service problems
12. [AS-5] Giving users individual attention
15. [AS-6] Employees who have the knowledge to answer user questions
17. [AS-7] Employees who are consistently courteous
20. [AS-8] Employees who deal with users in a caring fashion
23. [AS-9] Employees who understand the needs of their users

Library as Place

5. [LP-1] Quiet space for individual activities
9. [LP-2] A comfortable and inviting location
13. [LP-3] Library space that inspires study and learning
19. [LP-4] Community space for group learning and group study
24. [LP-5] A getaway for study, learning or research

Personal Control

2. [PC-1] Easy-to-use access tools that allow me to find things on my own
6. [PC-2] Convenient access to library collections
11. [PC-3] A library Web site enabling me to locate information on my own
16. [PC-4] Modern equipment that lets me easily access needed information
21. [PC-5] Making information easily accessible for independent use
25. [PC-6] Making electronic resources accessible from my home or office



Association of Research Libraries

21 Dupont Circle NW

Suite 800

Washington, DC 20036

Phone 202-296-2296

Fax 202-872-0884

<<http://www.libqual.org>>

Copyright © 2003 Association of Research Libraries

ISBN 1-59407-061-X