LibQUAL+®

2015 Survey

ARL

Contributors

Colleen Cook
McGill University

Fred Heath
University of Texas

Bruce Thompson
Texas A&M University

Martha Kyrillidou
Association of Research Libraries

Gary Roebuck
Association of Research Libraries

Amy Yeager
Association of Research Libraries

Association of Research Libraries / Texas A&M University

www.libqual.org

1   Introduction

1.1   Acknowledgements

This notebook contains information from the 2015 administration of the LibQUAL+® protocol. The material on the following pages is drawn from the analysis of responses from the participating institutions collected in 2015.

The LibQUAL+® project requires the skills of a dedicated group. We would like to thank several alumni members of the LibQUAL+® team for their key roles in the development of this service. From Texas A&M University, the qualitative leadership of Yvonna Lincoln has 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 in the early years. From the Association of Research Libraries, we are appreciative of contributions made by Consuella Askew, MaShana Davis, David Green, Richard Groves, Kaylyn Groves, Amy Hoseth, Kristina Justh, Mary Jackson, Jonathan Sousa, and Benny Yu.

A New Measures initiative of this scope is possible only as the collaborative effort of many libraries. To the directors and liaisons at all participating libraries goes the largest measure of gratitude. Without your commitment, the development of LibQUAL+® would not have been possible. We would like to extend a special thank you to all administrators at the participating consortia and libraries that are making this project happen effectively across various institutions.

Colleen Cook
McGill University

Martha Kyrillidou
Association of Research Libraries

Fred Heath
University of Texas

Gary Roebuck
Association of Research Libraries

Bruce Thompson
Texas A&M University

Amy Yeager
Association of Research Libraries

1.2   LibQUAL+®: A Project from StatsQUAL®

I would personally like to say a word about the development of LibQUAL+® over the last few years and to thank the people that have been involved in this effort. LibQUAL+® would not have been possible without the many people who have offered their time and constructive feedback over the years for the cause of improving library services. In a sense, LibQUAL+® has built three kinds of partnerships: one between ARL and Texas A&M University, a second one among the participating libraries and their staff, and a third one comprising the thousands of users who have provided their valuable survey responses over the years.

LibQUAL+® was initiated in 2000 as an experimental project for benchmarking perceptions of library service quality across 13 ARL libraries under the leadership of Fred Heath and Colleen Cook, then both at Texas A&M University Libraries. It matured quickly into a standard assessment tool that has been applied at more than 1,000 libraries. Through 2014, we have had 2,753 institutional surveys implemented across 1,343 institutions in over 29 countries, 19 language translations, and over 2.1 million respondents. About 42% of the users who respond to the survey provide rich comments about the ways they use their libraries.

There have been numerous advancements over the years. In 2005, libraries were able to conduct LibQUAL+® over a two session period (Session I: January to May and Session II: July to December). The LibQUAL+® servers were moved from Texas A&M University to an external hosting facility under the ARL brand known as StatsQUAL®. Through the StatsQUAL® gateway we will continue to provide innovative tools for libraries to assess and manage their environments in the coming years. In 2006, we added an experimental version of the LibQUAL+® Analytics (for more information, see Section 1.6). Between 2007 and 2010 we incorporated additional languages including non-roman languages like Chinese, Greek, Hebrew, and Japanese. In 2012, we added Korean, in 2013 we tested Arabic with a group of libraries in the Gulf Region, and in 2014 we added Swahili.

In 2008, we started experimenting with a new technology platform that incorporates many desired enhancements and tested a shorter version of the LibQUAL+® survey known as LibQUAL+® Lite. In 2010, we launched the new platform in our operational environment after researching extensively the LibQUAL+® Lite behavior [see: Kyrillidou, M. (2009). *Item Sampling in Service Quality Assessment Surveys to Improve Rates and Reduce Respondent Burden: The 'LibQUAL+® Lite' Randomized ControlTrial (RCT)* (Doctoral dissertation). Retrieved from <https://www.ideals.illinois.edu/bitstream/handle/2142/14570/Kyrillidou_Martha.pdf?sequence=3>.

In 2010, we introduced a participation fee that rewards systematic periodic participation in LibQUAL+® in a way that the implementation fee gets reduced when a library implements the protocol on an annual or biennial basis. In 2011, we introduced a Membership Subscription fee to support access to the data repository for those years that libraries do not implement a survey and for future enhancement of LibQUAL+® Analytics. In 2013, we introduced the customization feature for the Position/User group categories, and in 2014 we introduced a version of the survey questionnaire for mobile devices and tested support for locally developed questions. In 2015, we are introducing a process for libraries to submit locally developed questions, and we are piloting a Confidential protocol, which allows libraries to send targeted reminders only to individuals who have not responded to the survey.

LibQUAL+® findings have engaged thousands of librarians in discussions with colleagues and ARL on what these findings mean for local libraries, for their regions, and for the future of libraries across the globe. Consortia have supported their members' participation in LibQUAL+® in order to offer an informed understanding of the changes occurring in their shared environment. Summary highlights have been published on an annual basis showcasing the rich array of information available through LibQUAL+®:

LibQUAL+® 2014 Survey Highlights
<https://www.libqual.org/documents/LibQual/publications/2014_LibQUAL_Highlights.pdf>

LibQUAL+® 2013 Survey Highlights
<https://www.libqual.org/documents/LibQual/publications/2013--_LibQUAL_Highlights.pdf>

LibQUAL+® 2012 Survey Highlights
<**https://www.libqual.org/documents/LibQual/publications/2012_LibQUAL_Highlights.pdf**>

LibQUAL+® 2011 Survey Highlights
<http://www.libqual.org/documents/LibQual/publications/LibQUALHighlights2011_Full.pdf>
<http://www.libqual.org/documents/LibQual/publications/LibQUALHighlights2011_Full_Supplement.pdf>

LibQUAL+® 2010 Survey Highlights
<http://www.libqual.org/documents/LibQual/publications/LibQUALHighlights2010_Full.pdf>
<http://www.libqual.org/documents/LibQual/publications/LibQUALHighlights2010_Full_Supplement.pdf>

LibQUAL+® 2009 Survey Highlights
<http://www.libqual.org/documents/admin/LibQUALHighlights2009_Full.pdf>
<http://www.libqual.org/documents/admin/LibQUALHighlights2009_Full_Supplement.pdf>

LibQUAL+® 2008 Survey Highlights
<**http://www.libqual.org/documents/admin/LibQUALHighlights2008_Full1.pdf**>
<http://www.libqual.org/documents/admin/LibQUALHighlights2008_Full_Supplement1.pdf>

LibQUAL+® 2007 Survey Highlights
<http://www.libqual.org/documents/admin/LibQUALHighlights2007_Full1.pdf>
<http://www.libqual.org/documents/admin/2007_Highlights_Supplemental.pdf>

LibQUAL+® 2006 Survey Highlights
<http://www.libqual.org/documents/admin/LibQUALHighlights2006.pdf>

LibQUAL+® 2005 Survey Highlights
<http://www.libqual.org/documents/admin/LibQUALHighlights20051.pdf>

LibQUAL+® 2004 Survey Highlights
<http://www.libqual.org/documents/admin/ExecSummary%201.3.pdf>

LibQUAL+® 2003 Survey Highlights
<http://www.libqual.org/documents/admin/ExecSummary1.1_locked.pdf>

Summary published reports have also been made available:
<http://www.arl.org/resources/pubs/libqualpubs/index.shtml>

The socio-economic and technological changes that are taking place around us are affecting the ways users interact with libraries. We used to think that libraries could provide *reliable and reasonably complete access* to published and scholarly output, yet we now know from LibQUAL+® that *users have an insatiable appetite for content. No library can ever have sufficient information content that would come close to satisfying this appetite. Furthermore, our websites, access technologies and discovery tools are not quite maximizing the value libraries can deliver. There is a lot of room for improvement in this area!*

The team at ARL and beyond is proud to develop and nurture the community that has been built around LibQUAL+®. We believe that closer collaboration and sharing of resources will bring libraries nearer to meeting the ever-changing needs of their demanding users. It is this spirit of collaboration and a willingness to view the world of libraries as an organic, integrated, collaborative, complementary and cohesive environment that can bring forth scalable innovations and break new ground. Innovation, demonstrating value and marketing services effectively are key activities contributing to stronger libraries with better services and improved learning and research outcomes for our users.

In an example of collaboration, LibQUAL+® participants are sharing their results within the LibQUAL+® community with an openness that nevertheless respects the confidentiality of each institution and its users. LibQUAL+® participants are actively shaping our Share Fair gatherings, our in-person events, and our understanding of how the collected data can be used. LibQUAL+® offers a rich resource that can be viewed using many lenses, should be interpreted in multiple ways, and is a powerful tool libraries can use to understand their environment. Furthermore, we recognize that this tool is one of the strategic elements of the evolving assessment infrastructure libraries are building, as can be seen from the Library Assessment Conference gatherings.

LibQUAL+® is a community mechanism for improving libraries and I hope we see an increasing number of

libraries utilizing it successfully in the years to come. I look forward to your continuing active involvement in helping us understand the many ways we can improve library services.

With warm regards,

Martha Kyrillidou, PhD
Senior Director, ARL Statistics and Service Quality Programs
Association of Research Libraries

1.3   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 paired with training that helps libraries assess and improve library services, change organizational culture, and market the library. The survey instrument measures library users' minimum, perceived, and desired service levels of service quality across three dimensions: Affect of Service, Information Control, and Library as Place. 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 comparable assessment information from peer institutions
- Identify best practices in library service
- Enhance library staff members' analytical skills for interpreting, and acting on data

Since 2000, more than 1,343 libraries have participated in LibQUAL+®, including college and university libraries, community college libraries, health sciences libraries, academic law libraries, and public libraries---some through various consortia, others as independent participants. LibQUAL+® has expanded internationally, with participating institutions in Africa, Asia, Australia and Europe. It has been translated into a number of languages, including Arabic, Afrikaans, Chinese (Traditional), Danish, Dutch, Finnish, French, German, Greek, Hebrew, Japanese, Korean, Norwegian, Spanish, Swahili, Swedish, and Welsh. 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 for LibQUAL+® participants
- Access to an online library of LibQUAL+® research articles
- The opportunity to become part of a community interested in developing excellence in library services

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. Use our online Management Center to set up and track the progress of your survey. You invite your users to take the survey by distributing the URL for your library's Web form via e-mail or posting a link to your survey on the library's Web site. Respondents complete the survey form and their answers are sent to the LibQUAL+® 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).

1.4   Web Access to Data

Data summaries from the 2015 iteration of the LibQUAL+® survey will be available to project participants online in the Data Repository via the LibQUAL+® survey management site:

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

1.5   Explanation of Charts and Tables

A working knowledge of how to read and derive relevant information from the tables and charts used in your LibQUAL+® results notebook is essential. In addition to the explanatory text below, you can find a self-paced tutorial on the project web site at:

<http://www.libqual.org/about/about_survey/tools>

Both the online tutorial and the text below are designed to help you understand your survey results and present and explain those results to others at your library.

Radar Charts

Radar charts are commonly used throughout the following pages to display both aggregate results and results from individual institutions. 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 three dimensions measured by the survey are grouped together on the radar charts, and each dimension is labeled: Affect of Service (AS), Information Control (IC), and Library as Place (LP).

Radar charts are used in this notebook to present the item summaries (the results from the 22 core survey questions).

How to read a radar chart

Radar charts are an effective way to show strengths and weaknesses graphically 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 gap 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 gap 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. If all users rated an item identically, the SD would be zero. Larger SDs indicate more disparate opinions of the users about library service quality.

In this notebook, standard deviations are provided for every mean presented in the tables. In a very real sense, the SD indicates how well a given numerical mean does at representing all the data. If the SD of the scores about a given mean was zero, the mean perfectly represents everyone's scores, and all the scores and the mean are all identical!

Service Adequacy

The service adequacy gap score 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 gap scores on each item of the survey, as well as for each of the three 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 gap 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

The service superiority gap score 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 gap scores on each item of the survey, as well as for each of the three 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 gap score indicates that your users' perceived level of service quality is above their desired level of service quality and is printed in green.

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

In consortia 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.

1.6   A Few Words about LibQUAL+® 2015

Libraries today confront escalating pressure to demonstrate value and 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)

Today, "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+® service (Cook, Heath & B. Thompson, 2002, 2003; Heath, Cook, Kyrillidou & Thompson, 2002; Kyrillidou & Cook, 2008; Kyrillidou, Cook, & Rao, 2008; Thompson, Cook & Heath, 2003; Thompson, Cook & Thompson, 2002; Thompson, Kyrillidou & Cook, 2007a, 2007b, 2008).

Within a service-quality assessment model, "only customers judge quality; all other judgments are essentially irrelevant" (Zeithaml, Parasuraman, Berry, 1990, p. 16). LibQUAL+® was modeled on the 22-item SERVQUAL tool developed by Parasuraman, Berry and Zeithaml (Parasuraman, Berry & Zeithaml, 1991). However, SERVQUAL has been shown to measure some issues not particularly relevant in libraries, and to not measure some issues of considerable interest to library users.

The final 22 LibQUAL+® items were developed through several iterations of studies involving a larger pool of 56 items. The selection of items employed in the LibQUAL+® survey has been grounded in the users' perspective as revealed in a series of qualitative studies involving a larger pool of items. The items were identified following qualitative research interviews with student and faculty library users at several different universities (Cook, 2002a; Cook & Heath, 2001).

LibQUAL+® is not just a list of 22 standardized items. First, LibQUAL+® offers libraries the ability to select five optional local service quality assessment items. Second, the survey includes a comments box soliciting open-ended user views. Almost half of the people responding to the LibQUAL+® survey provide valuable feedback through the comments box. These open-ended comments are helpful for not only (a) understanding why users provide certain ratings, but also (b) understanding what policy changes users suggest, because many users feel the obligation to be constructive. Participating libraries are finding the real-time access to user comments one of the most useful devices in challenging library administrators to think outside of the box and develop innovative ways for improving library services.

LibQUAL+® is one of 11 ways 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 with regard to peer institutions can provide important insights Berry recommended using multiple listening methods and emphasized that "Ongoing data collection... is a necessity. Transactional surveys, total market surveys, and employee research should always be included" (Berry, 1995, p. 54).

LibQUAL+® Lite

In 2010, the LibQUAL+® Lite customization feature was introduced: a shorter version of the survey that takes less time to fill in. The Lite protocol uses item sampling methods to gather data on all 22 LibQUAL+® core items, while only requiring a given single user to respond to a subset of the 22 core questions. Every Lite user responds to one "linking" item from each of the subscales (Affect of Service, Information Control, and Library as Place), and to a randomly-selected subset of five items from the remaining 19 core LibQUAL+® items. However, all 22 core items are completed by at least some users on a given campus. As a consequence, because individual Lite users only complete a subset of the core items, survey response times are roughly cut in half, while the library still receives data on every survey question. Each participating library sets a "Lite-view Percentage" to determine what percentage of individuals will randomly receive the Lite versus the long version of the survey.

The mechanics of item sampling strategy and results from pilot testing are described in Martha Kyrillidou's dissertation. Findings indicate that LibQUAL+® Lite is the preferred and improved alternative to the long form of 22 core items that has been established since 2003. The difference between the long and the Lite version of the survey is enough to result in higher participation rates ranging from 3.1 to 10.6 percent more for surveys that reduce average response times from 10 to 6 minutes (Kyrillidou, 2009, Thompson, Kyrillidou & Cook, 2009a; Thompson, Kyrillidou & Cook, 2009b).

Score Scaling

"Perceived" scores on the 22 LibQUAL+® core items, the three 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. A university-wide retreat with a small-group facilitated discussion to solicit suggestions for improvement is another follow-up mechanism that has been implemented in several LibQUAL+® participating libraries.

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 22 items. LibQUAL+® is 22 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, Kyrillidou, and Askew edited a special issue of the Journal of Library Administration (Vol. 40, No. 3/4) reporting additional case studies on the use of LibQUAL+® data to aid the improvement of library service quality. This special issue has also been published by Hayworth Press as a monograph. Kyrillidou (2008) edited a compilation of articles that complements and provides an updated perspective on these earlier special issues. These publications can be ordered by sending an email to libqual@arl.org. Numerous other articles have been published in the literature and a good number of references can be located on the LibQUAL+® publication page search engine under 'Related articles.'

Data Screening

The 22 LibQUAL+® core items measure perceptions of total service quality, as well as three sub-dimensions of perceived library quality: (a) *Service Affect* (9 items, such as "willingness to help users"); (b) *Information Control* (8 items, such as "a library Web site enabling me to locate information on my own" and "print and/or electronic journal collections I require for my work"); and (c) *Library as Place* (5 items, such as "a getaway for study, learning, or research").

However, as happens in any survey, some users provided incomplete data, 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 core items monitors whether a given user has completed all items. On each of these items, in order to submit the survey successfully, users must provide a rating of (a) minimally-acceptable service, (b) desired service, and (c) perceived service or rate the item "not applicable" ("N/A"). If these conditions are not met, when the user attempts to leave the Web page presenting the core items, the software shows the user where missing data are located, and requests complete data. The user may of course abandon the survey without completing all the items. *Only records with complete data on the presented core items and where respondents chose a "user group," if applicable, were retained in summary statistics.*

2. Excessive "N/A" Responses. Because some institutions provided access to a lottery drawing for an incentive (e.g., an iPod) for completing the survey, some users might have selected "N/A" 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. *It was decided that records of the long version of the survey containing more than 11 N/A responses and records of the Lite version containing more than 4 "N/A" responses should be eliminated from the summary statistics.*

3. Excessive Inconsistent Responses. On the LibQUAL+® survey, 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 of 7.5 on the 1-to-9 (9 is highest) scale 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 (i.e., score inversions) 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 was made. *Records of the long version of the survey containing more than 9 logical inconsistencies and records of the Lite version containing more than 3 logical inconsistencies were eliminated from the summary statistics.*

LibQUAL+® Norms

An important way to interpret LibQUAL+® data is by examining the zones of tolerance for items, the three 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 2004 and 2005, 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 percent of individual users generated "perceived" ratings lower than 6.5, 6.5 might not be so bad. And if 90 percent 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 rating both (a) "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 for which 90 percent of institutions have a lower gap score is a different gap score than the same -0.5 for a different item in which 90 percent 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 provide 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 that you make less money than 85 percent 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+® 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 are available on the LibQUAL+® Web site at::

<center>**<http://www.libqual.org/resources/norms_tables>**</center>

Response Rates

At the American Library Association (ALA) Midwinter Meeting in San Antonio in January 2000, participants were cautioned that response rates on the final LibQUAL+® survey would probably range from 25-33 percent. 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 percent. 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 percent. We don't know the exact response rate.

Representativeness Versus Response Rate. If 100 percent 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 percent 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 percent 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)	Population (N=16,000)
Gender	Gender
Students 53% female	Students 51% female
Faculty 45% female	Faculty 41% female
Disciplines	Disciplines
Liberal Arts 40%	Liberal Arts 35%
Science 15%	Science 20%
Other 45%	Other 45%

Omega University

Completers (n=200 / 800)	Population (N=23,000)
Gender	Gender
Students 35% female	Students 59% female
Faculty 65% female	Faculty 43% female
Disciplines	Disciplines
Liberal Arts 40%	Liberal Arts 15%
Science 20%	Science 35%
Other 40%	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.

LibQUAL+® Analytics

The LibQUAL+® Analytics is a tool that permits participants to dynamically create institution-specific tables and charts for different subgroups and across years. The current interface grants access to 2004-2015 statistical data and unifies the analysis within an institution's data (formerly called institution explorer) and across time (longitudinal analysis) . It provides a one-stop dynamic shop to interactively analyze results and benchmark with other institutions.

Participants can refine the data by selecting specific years, user groups, and disciplines, view and save the selection

in various tables and charts, and download their datasets for further manipulation in their preferred software. The current version of LibQUAL+® Analytics is only the beginning of our effort to provide more customized analysis. More features are in development based on feedback we receive from our participants. For a subscription to LibQUAL+® Analytics, e-mail libqual@arl.org. Our future plans call for building a full-scale data warehouse with the ability to overlay different data visualization tools on top of it.

Survey Data

In addition to the notebooks, the norms, and the Analytics, LibQUAL+® also makes available (a) raw survey data in SPSS and (b) raw survey data in Excel for all participating libraries. Additional training using the SPSS data file is available as a follow-up workshop and through the Service Quality Evaluation Academy (see below), which also offers training on analyzing qualitative data. The survey comments are also downloadable in various formats from the Web site.

ARL Service Quality Evaluation 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 ARL Service Quality Evaluation Academy. For more information about the Academy, see the LibQUAL+® Events page at

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

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 Academy is one more resource for library staff who would like to develop enhanced service-quality assessment skills.

Library Assessment Conference

The growing community of practice related to library assessment is convening regularly in North America through the Library Assessment Conference. Gatherings of this community have taken place on a biennial basis since 2006. The proceedings and recent information are available at

<http://www.libraryassessment.org>

For more information, about LibQUAL+® or the Association of Research Libraries' Statistics and Assessment program, see:

<http://www.libqual.org/>
<http://www.statsqual.org/>
<http://www.arl.org/stats/>
<http://www.arl.org/focus-areas/statistics-assessment>

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1 Survey Protocol and Language for ARL

The data below indicate the number of valid surveys collected by language and long/Lite breakdowns.

		Long	Lite	Total *(by Langauge)*
English (American)	Count	1,248	13,474	14,722
	% of Protocol	100.00	100.00	100.00
	% of Language	8.48	91.52	100.00
	% of Total Cases	8.48	91.52	100.00
Total *(by Survey Protocol)*	Count	1,248	13,474	14,722
	% of Protocol	100.00	100.00	100.00
	% of Language	8.48	91.52	100.00
	% of Total Cases	8.48	91.52	100.00

2   Respondents by Institution for ARL

Below is a listing of all the consortium institutions that participated in the 2015 LibQUAL+® survey. Where applicable, they have been separated out by library type (e.g. Academic Health Sciences, College or University, Community College). The number of respondents from each institution and the percentage of the total number of consortium respondents that they represent are provided.

Institution	Respondents n	Respondents %
College or University		
1) Brigham Young University	2,161	14.68%
2) Florida State University	2,646	17.97%
3) McGill University Library	744	5.05%
4) Ohio State University Libraries	1,871	12.71%
5) Ohio University Libraries, Athens Campus	1,291	8.77%
6) Texas A&M University, College Station	3,102	21.07%
7) University of Houston Libraries	673	4.57%
8) University of Massachusetts Amherst	1,413	9.60%
9) Vanderbilt University, Jean and Alexander Heard Library	821	5.58%
Sub Total	**14,722**	**100.00%**
Grand Total:	**14,722**	**100.00%**

3   Summary for College or University

3.1   Demographic Summary for College or University

3.1.1 Respondents by User Group

User Group	Respondent n	Respondent %
Undergraduate		
First year	1,488	10.11%
Second year	1,592	10.81%
Third year	1,835	12.46%
Fourth year	1,661	11.28%
Fifth year and above	430	2.92%
Non-degree	46	0.31%
Sub Total:	**7,052**	47.90%
Graduate		
Masters	2,083	14.15%
Doctoral	2,299	15.62%
Non-degree or Undecided	76	0.52%
Sub Total:	**4,458**	30.28%
Faculty		
Professor	741	5.03%
Associate Professor	608	4.13%
Assistant Professor	468	3.18%
Lecturer	241	1.64%
Adjunct Faculty	169	1.15%
Other Academic Status	142	0.96%
Sub Total:	**2,369**	16.09%
Library Staff		
Administrator	12	0.08%
Manager, Head of Unit	21	0.14%
Public Services	44	0.30%
Systems	4	0.03%
Technical Services	36	0.24%
Other	108	0.73%
Sub Total:	**225**	1.53%
Staff		
Research Staff	140	0.95%
Other Staff Positions	478	3.25%
Sub Total:	**618**	4.20%
Total:	**14,722**	**100.00%**

3.1.2 Population and Respondents 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 t o the demographic questions at the end of the survey instrument and the demographic data provided by institutions in the online Representativeness section*.

The chart maps the percentage of respondents for each us   er subgroup in red. Population percentages for each use   r subgroup are m apped in blue. The table shows the   number and percentage for each user sub-group for the genera   l population (N) and for survey respondents (n).

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

Respondents Profile by User Sub-Group
Population Profile by User Sub-Group
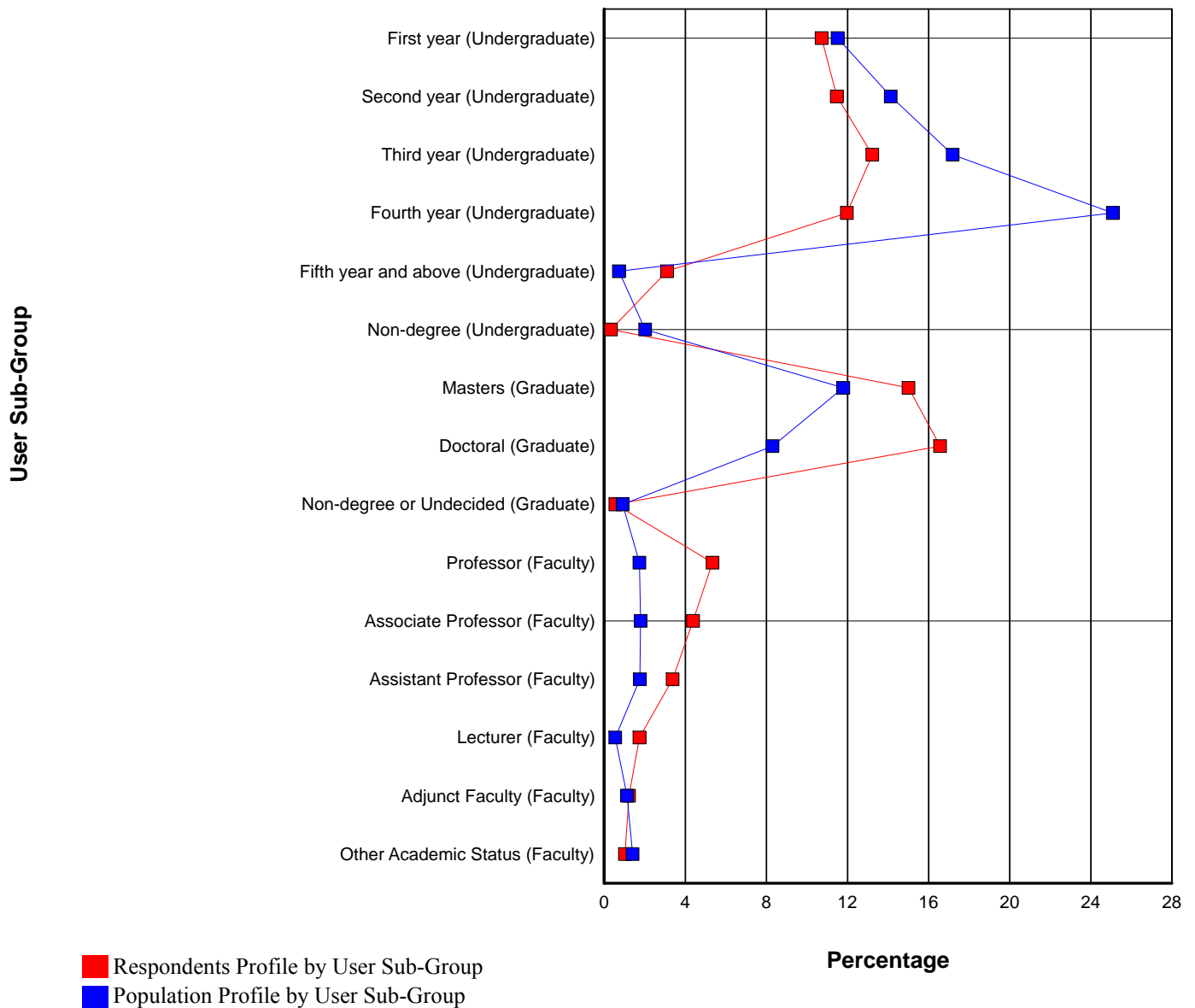
User Sub-Group	Population N	Population %	Respondents n	Respondents %	%N - %n
First year (Undergraduate)	25,701	11.51	1,488	10.72	0.79
Second year (Undergraduate)	31,552	14.13	1,592	11.47	2.66
Third year (Undergraduate)	38,367	17.18	1,835	13.22	3.96
Fourth year (Undergraduate)	56,012	25.09	1,661	11.97	13.12
Fifth year and above (Undergraduate)	1,620	0.73	430	3.10	-2.37
Non-degree (Undergraduate)	4,499	2.02	46	0.33	1.68
Masters (Graduate)	26,320	11.79	2,083	15.01	-3.22
Doctoral (Graduate)	18,532	8.30	2,299	16.56	-8.26
Non-degree or Undecided (Graduate)	2,028	0.91	76	0.55	0.36
Professor (Faculty)	3,872	1.73	741	5.34	-3.60
Associate Professor (Faculty)	4,007	1.79	608	4.38	-2.59
Assistant Professor (Faculty)	3,923	1.76	468	3.37	-1.61
Lecturer (Faculty)	1,211	0.54	241	1.74	-1.19
Adjunct Faculty (Faculty)	2,502	1.12	169	1.22	-0.10
Other Academic Status (Faculty)	3,117	1.40	142	1.02	0.37
Total:	**223,263**	**100.00**	**13,879**	**100.00**	**0.00**

Language: English (American)
Institution Type: College or University
Consortium: ARL
User Group: All (Excluding Library Staff, Staff)

3.1.3 Population and Respondents by Standard Discipline

The chart and table below show a breakdown of survey   respondents by discipline, based on user responses t o the demographic questions and the demographic data provided by institutions in the online Representativeness section*.

This section shows survey respondents broken down based on the LibQUAL+® standard discipline categories. The chart maps percentage of respondents for each discipline in red. Population percentages for each discipline are m apped in blue. The table shows the num ber and percentage for each discipline, for the general population (N) and for survey respondents (n).

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

■ Respondent Profile by Discipline
■ Population Profile by Discipline

Discipline	Population N	Population %	Respondents n	Respondents %	%N - %n
Agriculture / Environmental Studies	14,688	4.35	612	4.41	-0.06
Architecture	4,249	1.26	142	1.02	0.24
Business	44,003	13.04	1,431	10.31	2.72
Communications / Journalism	7,916	2.35	400	2.88	-0.54
Education	26,329	7.80	1,173	8.45	-0.65
Engineering / Computer Science	54,785	16.23	2,039	14.69	1.54
General Studies	2,999	0.89	39	0.28	0.61
Health Sciences	38,076	11.28	1,518	10.94	0.34
Humanities	22,350	6.62	1,589	11.45	-4.83
Law	4,150	1.23	159	1.15	0.08
Military / Naval Science	0	0.00	4	0.03	-0.03
Other	10,912	3.23	351	2.53	0.70
Performing & Fine Arts	9,987	2.96	642	4.63	-1.67
Science / Math	40,786	12.08	1,791	12.91	-0.82
Social Sciences / Psychology	45,438	13.46	1,858	13.39	0.07
Undecided	10,865	3.22	128	0.92	2.30
Total:	**337,533**	**100.00**	**13,876**	**100.00**	**0.00**

3.1.4   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.

Age:	Respondents n	Respondents %
Under 18	24	0.23
18 - 22	4,207	39.59
23 - 30	2,997	28.20
31 - 45	1,828	17.20
46 - 65	1,376	12.95
Over 65	195	1.83
Total:	**10,627**	**100.00**

3.1.5   Respondent Profile by Sex:

The table below shows a breakdown of survey respondents by sex, based on user responses to the demographic questions and the demographic data provided by institutions in the online Representativeness section*. 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 Representativeness section. When population data is missing or incomplete, it is because this data was not provided.

Sex:	Population N	Population %	Respondents n	Respondents %
Female	127,938	50.13	4,421	55.41
Male	127,293	49.87	3,557	44.59
Total:	**255,231**	**100.00**	**7,978**	**100.00**

3.1.6   Respondent Profile by Full or part-time student?

Full or part-time student?	Population N	Population %	Respondents n	Respondents %
Full-time	227,605	81.48	7,447	70.42
Part-time	47,374	16.96	788	7.45
Does not apply / NA	4,369	1.56	2,340	22.13
Total:	**279,348**	**100.00**	**10,575**	**100.00**

3.2   Core Questions Summary for ARL

This radar chart shows the aggregate results for the 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 random ly throughout the survey, on this chart they are grouped into sections: Affect of Service, Information Control, and Library as Place.

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

The following two tables show m ean scores and standard deviations fo r 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.)

Legend:
- 🟥 Perceived Less Than Minimum
- 🟦 Perceived Greater Than Minimum
- 🟨 Perceived Less Than Desired
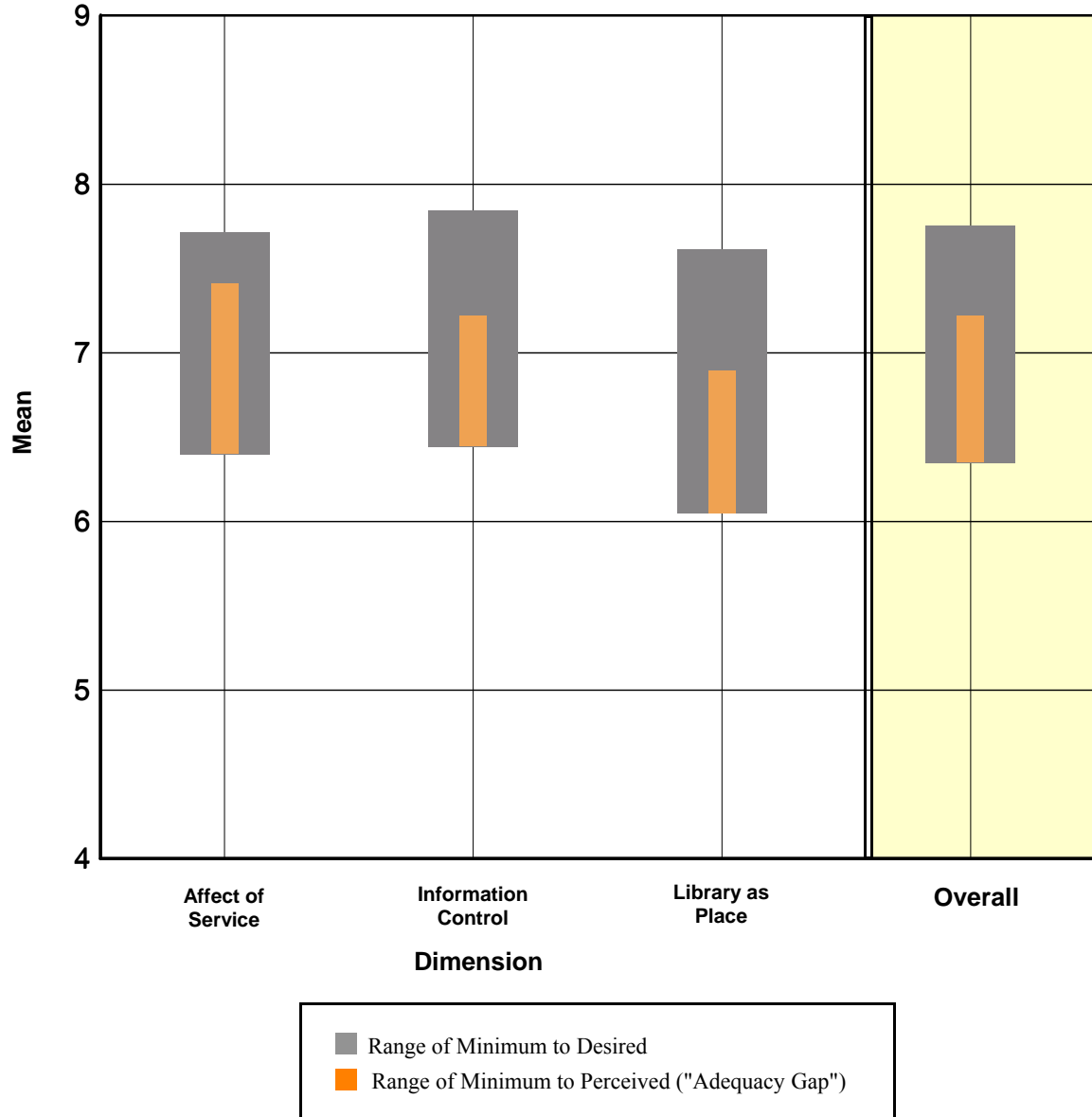- 🟩 Perceived Greater Than Desired

ID	Question Text	Minimum Mean	Desired Mean	Perceived Mean	Adequacy Mean	Superiority Mean	n
Affect of Service							
AS-1	Employees who instill confidence in users	6.01	7.36	7.07	1.06	-0.30	3,719
AS-2	Giving users individual attention	5.67	7.02	6.88	1.21	-0.15	4,313
AS-3	Employees who are consistently courteous	6.70	7.97	7.71	1.01	-0.26	4,465
AS-4	Readiness to respond to users' questions	6.58	7.83	7.54	0.95	-0.29	4,161
AS-5	Employees who have the knowledge to answer user questions	6.66	7.90	7.49	0.83	-0.41	4,465
AS-6	Employees who deal with users in a caring fashion	6.43	7.84	7.52	1.09	-0.32	13,772
AS-7	Employees who understand the needs of their users	6.55	7.81	7.39	0.84	-0.42	4,417
AS-8	Willingness to help users	6.62	7.89	7.62	1.00	-0.27	4,163
AS-9	Dependability in handling users' service problems	6.57	7.78	7.29	0.72	-0.49	3,465
Information Control							
IC-1	Making electronic resources accessible from my home or office	6.71	8.06	7.30	0.59	-0.76	4,251
IC-2	A library Web site enabling me to locate information on my own	6.73	8.07	7.22	0.49	-0.85	5,284
IC-3	The printed library materials I need for my work	6.19	7.52	7.14	0.96	-0.38	4,447
IC-4	The electronic information resources I need	6.24	7.75	7.20	0.96	-0.54	14,018
IC-5	Modern equipment that lets me easily access needed information	6.70	7.99	7.41	0.71	-0.58	5,166
IC-6	Easy-to-use access tools that allow me to find things on my own	6.53	7.93	7.14	0.61	-0.79	5,224
IC-7	Making information easily accessible for independent use	6.71	8.00	7.36	0.66	-0.64	4,929
IC-8	Print and/or electronic journal collections I require for my work	6.73	7.94	7.37	0.64	-0.56	3,940
Library as Place							
LP-1	Library space that inspires study and learning	5.94	7.61	6.75	0.81	-0.86	13,530
LP-2	Quiet space for individual activities	6.43	7.78	7.03	0.60	-0.75	4,215
LP-3	A comfortable and inviting location	6.34	7.88	7.25	0.92	-0.63	4,417
LP-4	A getaway for study, learning, or research	6.42	7.84	7.17	0.75	-0.67	4,189
LP-5	Community space for group learning and group study	5.80	7.32	6.86	1.06	-0.46	3,931
Overall:		**6.35**	**7.76**	**7.21**	**0.87**	**-0.54**	**14,497**

ID	Question Text	Minimum SD	Desired SD	Perceived SD	Adequacy SD	Superiority SD	n
Affect of Service							
AS-1	Employees who instill confidence in users	2.01	1.72	1.64	1.81	1.66	3,719
AS-2	Giving users individual attention	2.12	1.86	1.73	1.85	1.69	4,313
AS-3	Employees who are consistently courteous	1.85	1.35	1.44	1.81	1.48	4,465
AS-4	Readiness to respond to users' questions	1.77	1.42	1.45	1.67	1.39	4,161
AS-5	Employees who have the knowledge to answer user questions	1.79	1.40	1.47	1.70	1.45	4,465
AS-6	Employees who deal with users in a caring fashion	1.87	1.45	1.49	1.82	1.56	13,772
AS-7	Employees who understand the needs of their users	1.81	1.42	1.46	1.69	1.48	4,417
AS-8	Willingness to help users	1.83	1.39	1.43	1.73	1.43	4,163
AS-9	Dependability in handling users' service problems	1.76	1.48	1.49	1.68	1.53	3,465
Information Control							
IC-1	Making electronic resources accessible from my home or office	1.89	1.41	1.58	1.86	1.68	4,251
IC-2	A library Web site enabling me to locate information on my own	1.82	1.36	1.58	1.89	1.69	5,284
IC-3	The printed library materials I need for my work	2.08	1.79	1.60	2.05	1.89	4,447
IC-4	The electronic information resources I need	1.88	1.58	1.51	1.88	1.71	14,018
IC-5	Modern equipment that lets me easily access needed information	1.73	1.35	1.45	1.76	1.55	5,166
IC-6	Easy-to-use access tools that allow me to find things on my own	1.75	1.38	1.55	1.85	1.64	5,224
IC-7	Making information easily accessible for independent use	1.69	1.29	1.42	1.68	1.48	4,929
IC-8	Print and/or electronic journal collections I require for my work	1.92	1.59	1.54	1.88	1.73	3,940
Library as Place							
LP-1	Library space that inspires study and learning	2.00	1.78	1.78	2.26	2.25	13,530
LP-2	Quiet space for individual activities	2.01	1.68	1.77	2.28	2.13	4,215
LP-3	A comfortable and inviting location	1.85	1.43	1.62	2.01	1.82	4,417
LP-4	A getaway for study, learning, or research	1.93	1.57	1.63	2.04	1.85	4,189
LP-5	Community space for group learning and group study	2.10	1.93	1.74	2.27	2.22	3,931
Overall:		**1.44**	**1.08**	**1.16**	**1.39**	**1.19**	**14,497**

Language: **English (American)**
Institution Type: **College or University**
Consortium: **ARL**
User Group: **All (Excluding Library Staff)**

3.3   Core Question Dimensions Summary for ARL

On the chart below, scores for each dimension of library service quality have been plotted graphically. The exterior bars represent the range of minimum to desired m ean scores fo r each dim ension. The interior bars represent the range o f minimum to perceived mean scores (the service adequacy gap) for each dimension of library service quality.

| | Range of Minimum to Desired |
| | Range of Minimum to Perceived ("Adequacy Gap") |

The following table displays m ean scores for each dim ension of library service quality measured by the LibQUAL+® survey, where n is the num ber of respondents for each particular dimension. (For a m ore 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 A.

Dimension	Minimum Mean	Desired Mean	Perceived Mean	Adequacy Mean	Superiority Mean	n
Affect of Service	6.40	7.72	7.41	1.01	-0.31	14,228
Information Control	6.45	7.85	7.22	0.77	-0.63	14,458
Library as Place	6.05	7.61	6.89	0.84	-0.72	13,888
Overall	**6.35**	**7.76**	**7.21**	**0.87**	**-0.54**	**14,497**

The following table displays standard deviation for each dim ension of libra ry service quality m easured by the LibQUAL+® survey, where n is the num ber of respondents for each particular dimension. (For a m ore 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 A.

Dimension	Minimum SD	Desired SD	Perceived SD	Adequacy SD	Superiority SD	n
Affect of Service	1.68	1.32	1.33	1.55	1.31	14,228
Information Control	1.56	1.22	1.27	1.54	1.35	14,458
Library as Place	1.82	1.58	1.58	1.99	1.92	13,888
Overall	**1.44**	**1.08**	**1.16**	**1.39**	**1.19**	**14,497**

3.4   Local Question Summary for ARL

This table shows mean scores of each of the local questions added by the individual library or consortium, 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.

Question Text	Minimum Mean	Desired Mean	Perceived Mean	Adequacy Mean	Superiority Mean	n
Informing me of useful library services	5.68	6.99	6.51	0.83	-0.48	342
Librarians teaching me how to access or manage information	6.17	7.50	7.24	1.07	-0.26	114
Teaching me how to access, evaluate, and use information	5.64	7.07	6.90	1.26	-0.17	326
Contribution to the intellectual atmosphere of the campus	6.40	7.68	7.19	0.79	-0.49	532
Using the library for research	6.88	8.11	7.06	0.18	-1.05	117
The multimedia (CD / DVD / video / audio) collections I need	5.36	6.93	7.15	1.79	0.22	711
Helping me understand and publish in open access journals and books	5.69	6.96	6.43	0.74	-0.53	676
Library services that facilitate the communication of scholarly research outcomes	5.88	7.18	7.07	1.19	-0.12	121
Ease of use of library-provided electronic books	6.48	7.80	7.15	0.67	-0.66	910
Provision of space and facilities that allow me to use my own laptop and/or other mobile device	6.68	7.93	7.39	0.71	-0.54	410
Services that help me manage and share my research data	5.73	7.24	6.45	0.72	-0.79	243
Availability of subject specialist assistance	6.23	7.30	7.00	0.78	-0.30	486
Easily finding relevant full-text articles on the library's website	6.59	7.82	7.09	0.51	-0.73	215
The Ask-A-Librarian service provides information assistance when and where I need it.	6.05	7.37	7.29	1.24	-0.08	284
Access to information resources that support patient care and evidence-based practice	6.25	7.38	7.20	0.96	-0.18	584
Convenient access to library collections	6.59	7.82	7.26	0.67	-0.56	331
Enabling me to find information myself 24 hours a day	6.75	8.03	7.41	0.67	-0.61	417
Interdisciplinary library needs being addressed	5.98	7.29	7.07	1.09	-0.22	442
Providing direction to self-navigate the library	6.10	7.60	7.21	1.11	-0.39	392
Resources added to library collections on request	6.22	7.42	6.96	0.74	-0.47	329
Space that facilitates quiet study	6.43	7.81	7.22	0.79	-0.59	565
Space for students to study and work in groups	5.83	7.33	6.96	1.14	-0.36	547
Library staff providing help that assists in finding information needed now while improving my research skills	6.47	7.51	7.32	0.85	-0.19	244
The library program teaches me how to access, evaluate, and use information	5.64	7.07	6.85	1.20	-0.23	508
Helpful online guides and tutorials	6.22	7.31	6.85	0.63	-0.46	242

An online catalog that is user-friendly for finding materials	7.01	8.27	6.41	-0.60	-1.86	153
A service which can find for me rapidly and easily the documents not available in my own institution	6.66	8.01	7.57	0.91	-0.44	905
Library materials available when and where I need them	6.84	8.12	7.36	0.52	-0.76	163
Signs in the library are helpful and the library layout makes sense	6.07	7.65	7.08	1.00	-0.57	413
The value of the library's resources and services to me for my academic success	7.22	8.05	7.51	0.29	-0.54	242

This table shows the standard deviations for each of the lo cal questions added by the i ndividual library or consortium, where *n* is the num ber of respondents for each particular question. For a more detailed explanation of the headings , see the introduction to this notebook.

Question Text	Minimum SD	Desired SD	Perceived SD	Adequacy SD	Superiority SD	n
Informing me of useful library services	2.10	1.89	1.76	2.02	2.04	342
Librarians teaching me how to access or manage information	2.13	1.65	1.46	2.18	1.58	114
Teaching me how to access, evaluate, and use information	2.23	1.92	1.68	1.99	1.98	326
Contribution to the intellectual atmosphere of the campus	1.94	1.58	1.59	1.88	1.74	532
Using the library for research	2.15	1.82	1.71	1.94	1.89	117
The multimedia (CD / DVD / video / audio) collections I need	2.38	2.15	1.68	2.28	2.02	711
Helping me understand and publish in open access journals and books	2.27	2.21	2.05	2.01	1.96	676
Library services that facilitate the communication of scholarly research outcomes	1.98	1.74	1.52	1.79	1.48	121
Ease of use of library-provided electronic books	1.95	1.55	1.68	1.94	1.78	910
Provision of space and facilities that allow me to use my own laptop and/or other mobile device	1.82	1.63	1.59	2.04	1.87	410
Services that help me manage and share my research data	1.99	1.85	1.82	2.05	2.21	243
Availability of subject specialist assistance	2.01	1.75	1.71	1.73	1.59	486
Easily finding relevant full-text articles on the library's website	2.09	1.63	1.65	2.23	1.92	215
The Ask-A-Librarian service provides information assistance when and where I need it.	1.98	1.72	1.72	2.04	1.64	284
Access to information resources that support patient care and evidence-based practice	2.04	1.77	1.65	1.80	1.60	584
Convenient access to library collections	1.84	1.55	1.55	1.91	1.74	331
Enabling me to find information myself 24 hours a day	1.85	1.31	1.50	1.93	1.58	417
Interdisciplinary library needs being addressed	2.14	1.79	1.56	2.06	1.86	442
Providing direction to self-navigate the library	1.85	1.54	1.51	1.94	1.76	392
Resources added to library collections on request	2.04	1.71	1.81	2.00	1.99	329
Space that facilitates quiet study	2.01	1.64	1.55	2.20	1.84	565
Space for students to study and work in groups	2.00	1.85	1.65	2.20	2.19	547
Library staff providing help that assists in finding information needed now while improving my research skills	1.84	1.71	1.63	1.76	1.65	244

The library program teaches me how to access, evaluate, and use information	2.15	1.93	1.82	2.03	2.04	508
Helpful online guides and tutorials	2.01	1.74	1.71	1.96	1.69	242
An online catalog that is user-friendly for finding materials	1.71	1.11	1.91	2.42	2.08	153
A service which can find for me rapidly and easily the documents not available in my own institution	1.81	1.39	1.44	1.79	1.47	905
Library materials available when and where I need them	1.49	1.18	1.45	1.96	1.79	163
Signs in the library are helpful and the library layout makes sense	1.88	1.61	1.60	1.97	1.69	413
The value of the library's resources and services to me for my academic success	1.68	1.36	1.46	1.55	1.39	242

3.5   General Satisfaction Questions Summary for ARL

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

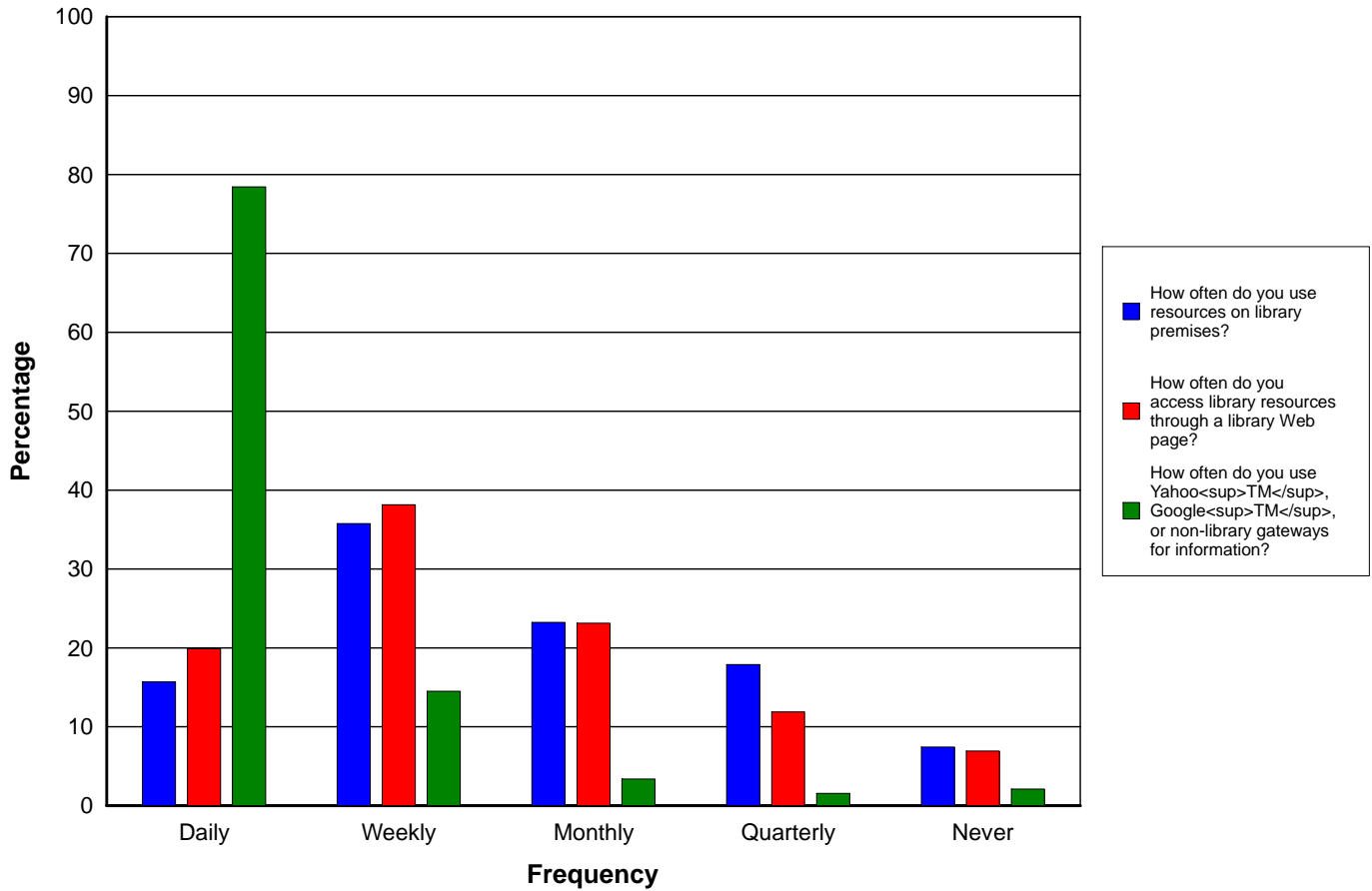| Satisfaction Question	Mean	SD	n
In general, I am satisfied with the way in which I am treated at the library.	7.84	1.30	7,821
In general, I am satisfied with library support for my learning, research, and/or teaching needs.	7.49	1.44	7,920
How would you rate the overall quality of the service provided by the library?	7.62	1.23	14,495

3.6   Information Literacy Outcomes Questions Summary for ARL

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 question. These scor es are calculated from responses to the inform ation 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.	6.41	1.91	5,339
The library aids my advancement in my academic discipline or work.	7.38	1.52	7,279
The library enables me to be more efficient in my academic pursuits or work.	7.50	1.48	7,376
The library helps me distinguish between trustworthy and untrustworthy information.	6.46	1.83	7,404
The library provides me with the information skills I need in my work or study.	7.09	1.59	5,332

3.7   Library Use Summary for ARL

This chart shows a graphi c representation of l ibrary use (bot h on t he premises and el ectronically), as wel l as use o f 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 t able below the chart displays the number and percentage of respondents who selected each option.

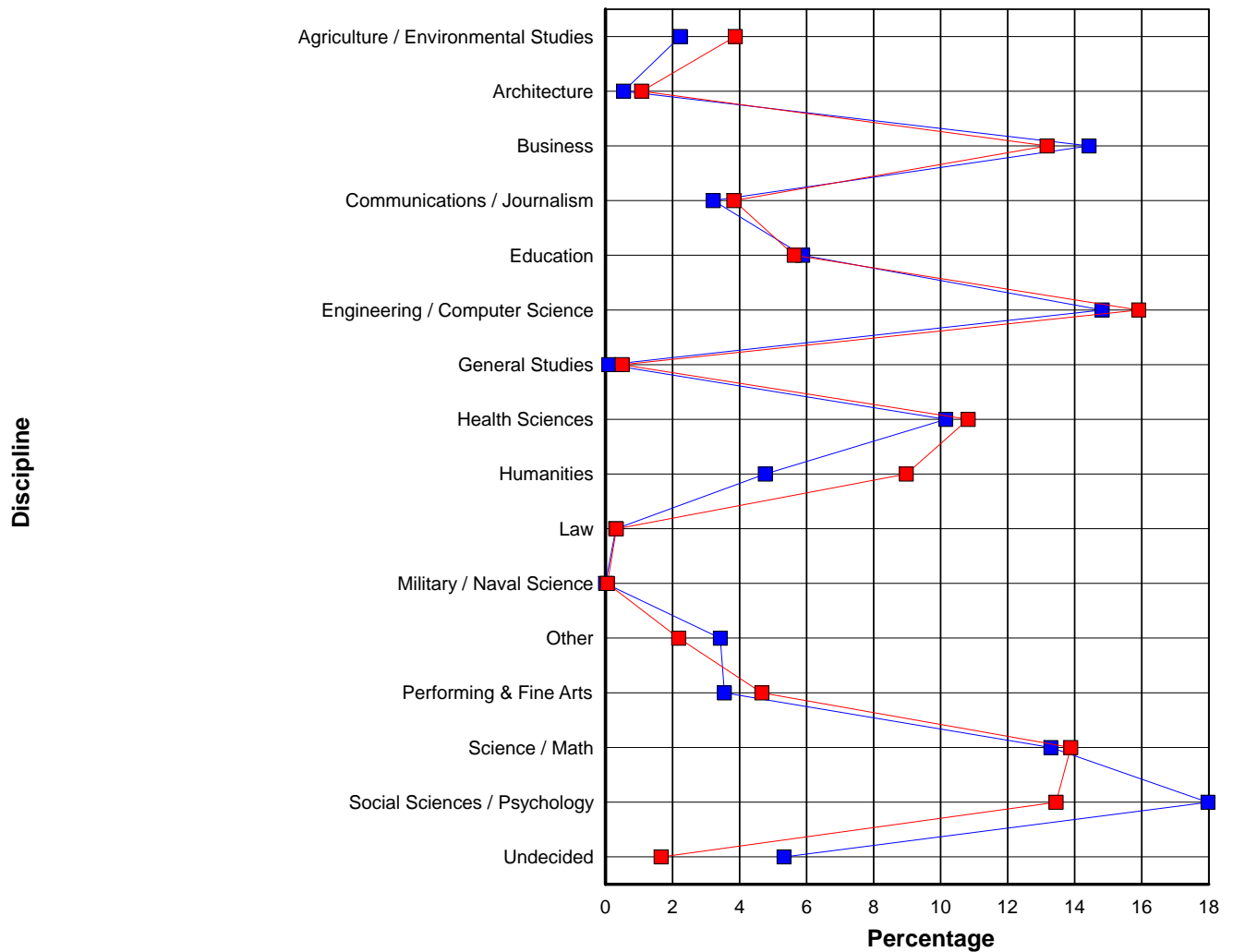|	Daily	Weekly	Monthly	Quarterly	Never	Total
How often do you use resources on library premises?	2,275	5,183	3,367	2,592	1,079	14,496
	15.69%	35.75%	23.23%	17.88%	7.44%	100.00%
How often do you access library resources through a library Web page?	2,883	5,529	3,355	1,723	1,005	14,495
	19.89%	38.14%	23.15%	11.89%	6.93%	100.00%
How often do you use Yahoo^{TM}, Google^{TM}, or non-library gateways for information?	11,368	2,102	490	226	306	14,492
	78.44%	14.50%	3.38%	1.56%	2.11%	100.00%

4   Summary for Undergraduate

4.1   Demographic Summary for Undergraduate

4.1.1   Population and Respondent Profiles by Standard Discipline

The chart and t able below show a breakdown of survey respondents by discipline, based on user responses t o the demographic questions and the demographic data provided by institutions in the online Representativeness section.

This section shows survey respondents broken down based on the LibQUAL+® standard discipline categories. The chart maps percentage of respondents for each discipline in red. Population percentages for each discipline are mapped in blue. The table shows the num ber and percentage for each discipline, for the general population (N) and for survey respondents (n).

■ Respondent Profile by Discipline
■ Population Profile by Discipline

Discipline	Population N	Population %	Respondents n	Respondents %	%N - %n
Agriculture / Environmental Studies	4,481	2.23	273	3.87	-1.64
Architecture	1,083	0.54	76	1.08	-0.54
Business	28,986	14.43	929	13.17	1.25
Communications / Journalism	6,460	3.22	270	3.83	-0.61
Education	11,816	5.88	397	5.63	0.25
Engineering / Computer Science	29,773	14.82	1,122	15.91	-1.09
General Studies	192	0.10	35	0.50	-0.40
Health Sciences	20,396	10.15	763	10.82	-0.67
Humanities	9,576	4.77	633	8.98	-4.21
Law	613	0.31	23	0.33	-0.02
Military / Naval Science	0	0.00	4	0.06	-0.06
Other	6,883	3.43	154	2.18	1.24
Performing & Fine Arts	7,128	3.55	329	4.67	-1.12
Science / Math	26,696	13.29	979	13.88	-0.59
Social Sciences / Psychology	36,110	17.97	948	13.44	4.53
Undecided	10,702	5.33	117	1.66	3.67
Total:	**200,895**	**100.00**	**7,052**	**100.00**	**0.00**

4.1.2   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.

Age:	Respondents n	Respondents %
Under 18	23	0.45
18 - 22	4,008	77.92
23 - 30	891	17.32
31 - 45	156	3.03
46 - 65	63	1.22
Over 65	3	0.06
Total:	**5,144**	**100.00**

4.1.3   Respondent Profile by Sex:

The table below shows a breakdown of survey respondents by sex, based on user responses to the demographic questions and the demographic data provided by institutions in the online Representativeness section*. 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 Representativeness section. When population data is missing or incomplete, it is because this data was not provided.

Sex:	Population N	Population %	Respondents n	Respondents %
Female	94,322	50.41	2,473	60.04
Male	92,803	49.59	1,646	39.96
Total:	**187,125**	**100.00**	**4,119**	**100.00**

4.1.4   Respondent Profile by Full or part-time student?

Full or part-time student?	Population N	Population %	Respondents n	Respondents %
Full-time	180,136	85.95	4,742	92.56
Part-time	29,453	14.05	356	6.95
Does not apply / NA	5	0.00	25	0.49
Total:	**209,594**	**100.00**	**5,123**	**100.00**

4.2   Core Questions Summary for Undergraduate

This radar chart shows the aggregate resu lts for the core survey questions. Each axis represents one question. A code to identify each question is displayed at th e outer point of each axis. W hile questions for each dimension of library service quality are scattered random ly throughout the survey , on this chart they are grouped into sections: Af fect of Service, Information Control, and Library as Place.

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 following two tables show m ean scores and standard deviations for each question, where n is the number of respondents for each particular question. (For a m ore detailed explanation of th e headings, see the Introduction to thi s notebook.)

Legend:
- **Red**: Perceived Less Than Minimum
- **Blue**: Perceived Greater Than Minimum
- **Yellow**: Perceived Less Than Desired
- **Green**: Perceived Greater Than Desired

Language: **English (American)**
Institution Type: **College or University**
Consortium: **ARL**
User Group: **Undergraduate**
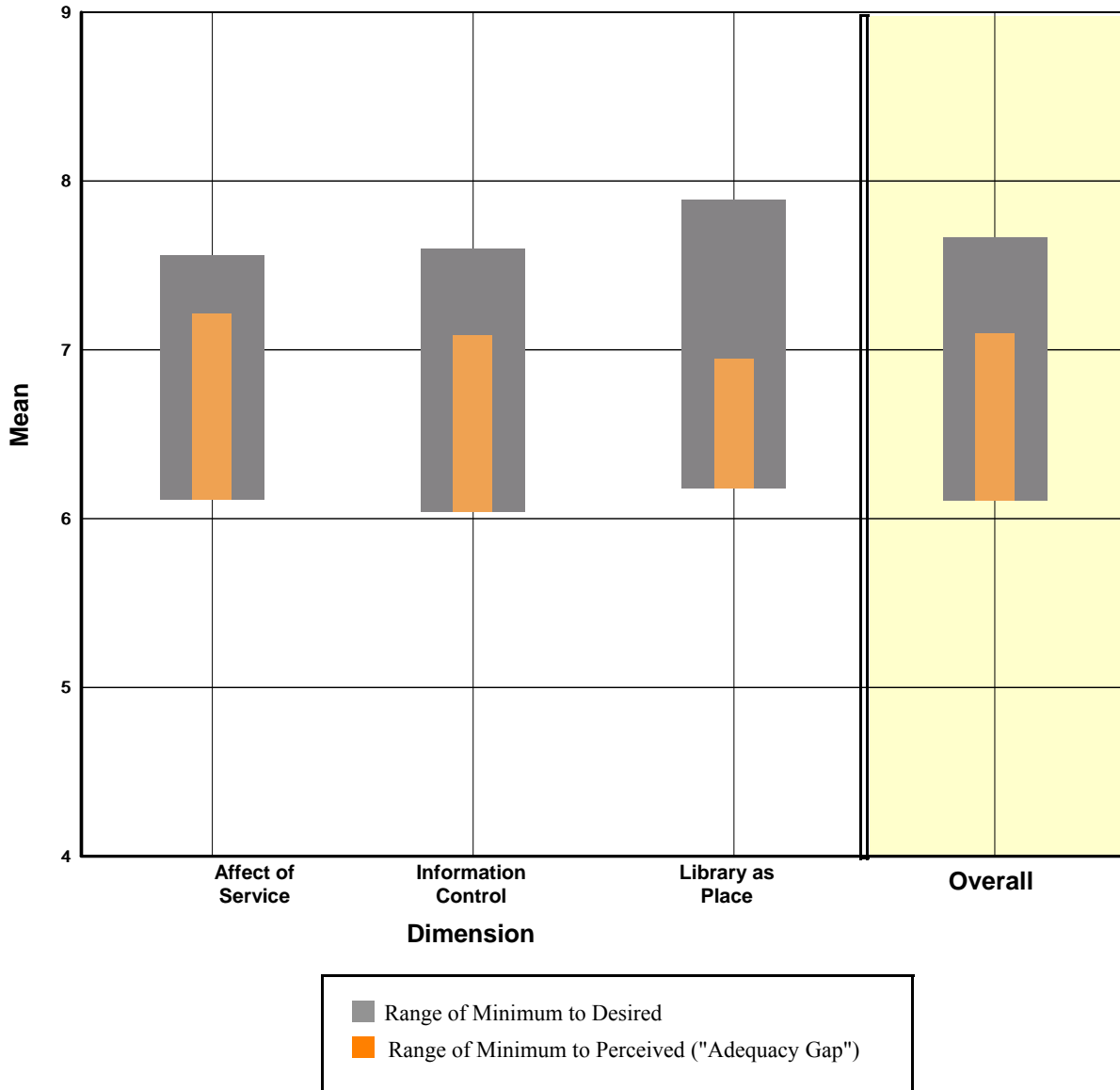
ID	Question Text	Minimum Mean	Desired Mean	Perceived Mean	Adequacy Mean	Superiority Mean	n
Affect of Service							
AS-1	Employees who instill confidence in users	5.67	7.14	6.81	1.14	-0.33	1,907
AS-2	Giving users individual attention	5.34	6.80	6.59	1.25	-0.21	2,168
AS-3	Employees who are consistently courteous	6.51	7.88	7.53	1.02	-0.35	2,211
AS-4	Readiness to respond to users' questions	6.30	7.64	7.35	1.05	-0.29	2,094
AS-5	Employees who have the knowledge to answer user questions	6.43	7.76	7.34	0.91	-0.42	2,216
AS-6	Employees who deal with users in a caring fashion	6.14	7.71	7.34	1.20	-0.37	6,697
AS-7	Employees who understand the needs of their users	6.28	7.66	7.24	0.96	-0.42	2,160
AS-8	Willingness to help users	6.31	7.70	7.41	1.10	-0.29	2,071
AS-9	Dependability in handling users' service problems	6.33	7.61	7.09	0.76	-0.52	1,731
Information Control							
IC-1	Making electronic resources accessible from my home or office	6.15	7.73	7.06	0.91	-0.67	2,120
IC-2	A library Web site enabling me to locate information on my own	6.31	7.82	7.16	0.85	-0.67	2,565
IC-3	The printed library materials I need for my work	6.06	7.43	7.15	1.08	-0.29	2,221
IC-4	The electronic information resources I need	5.75	7.41	7.03	1.27	-0.39	6,706
IC-5	Modern equipment that lets me easily access needed information	6.53	7.94	7.38	0.85	-0.56	2,646
IC-6	Easy-to-use access tools that allow me to find things on my own	6.18	7.72	7.00	0.82	-0.73	2,587
IC-7	Making information easily accessible for independent use	6.36	7.79	7.18	0.82	-0.61	2,421
IC-8	Print and/or electronic journal collections I require for my work	6.27	7.63	7.21	0.94	-0.42	1,878
Library as Place							
LP-1	Library space that inspires study and learning	6.08	7.92	6.79	0.71	-1.12	6,974
LP-2	Quiet space for individual activities	6.61	8.05	7.13	0.53	-0.92	2,242
LP-3	A comfortable and inviting location	6.43	8.05	7.30	0.87	-0.75	2,323
LP-4	A getaway for study, learning, or research	6.48	7.97	7.22	0.74	-0.75	2,203
LP-5	Community space for group learning and group study	5.94	7.59	6.89	0.95	-0.70	2,189
Overall:		**6.11**	**7.67**	**7.09**	**0.99**	**-0.57**	**7,052**

ID	Question Text	Minimum SD	Desired SD	Perceived SD	Adequacy SD	Superiority SD	n
Affect of Service							
AS-1	Employees who instill confidence in users	2.02	1.78	1.73	1.85	1.74	1,907
AS-2	Giving users individual attention	2.13	1.92	1.79	1.86	1.77	2,168
AS-3	Employees who are consistently courteous	1.89	1.36	1.50	1.87	1.52	2,211
AS-4	Readiness to respond to users' questions	1.79	1.50	1.48	1.65	1.40	2,094
AS-5	Employees who have the knowledge to answer user questions	1.81	1.46	1.52	1.73	1.50	2,216
AS-6	Employees who deal with users in a caring fashion	1.90	1.49	1.55	1.85	1.58	6,697
AS-7	Employees who understand the needs of their users	1.85	1.48	1.51	1.70	1.52	2,160
AS-8	Willingness to help users	1.88	1.47	1.47	1.74	1.49	2,071
AS-9	Dependability in handling users' service problems	1.78	1.52	1.53	1.63	1.54	1,731
Information Control							
IC-1	Making electronic resources accessible from my home or office	1.94	1.55	1.61	1.89	1.80	2,120
IC-2	A library Web site enabling me to locate information on my own	1.86	1.50	1.59	1.83	1.70	2,565
IC-3	The printed library materials I need for my work	2.14	1.84	1.60	2.04	1.85	2,221
IC-4	The electronic information resources I need	1.88	1.70	1.56	1.87	1.78	6,706
IC-5	Modern equipment that lets me easily access needed information	1.76	1.36	1.47	1.78	1.57	2,646
IC-6	Easy-to-use access tools that allow me to find things on my own	1.77	1.44	1.60	1.83	1.67	2,587
IC-7	Making information easily accessible for independent use	1.72	1.37	1.50	1.71	1.58	2,421
IC-8	Print and/or electronic journal collections I require for my work	1.98	1.71	1.58	1.88	1.80	1,878
Library as Place							
LP-1	Library space that inspires study and learning	1.85	1.43	1.71	2.10	1.97	6,974
LP-2	Quiet space for individual activities	1.84	1.37	1.75	2.19	2.01	2,242
LP-3	A comfortable and inviting location	1.79	1.26	1.59	1.93	1.71	2,323
LP-4	A getaway for study, learning, or research	1.82	1.40	1.58	1.93	1.70	2,203
LP-5	Community space for group learning and group study	1.95	1.65	1.74	2.16	2.08	2,189
Overall:		**1.46**	**1.11**	**1.18**	**1.38**	**1.18**	**7,052**

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 exterior bars represent the range of minimum to desired m ean scores fo r each dim ension. The interior bars represent the range o f minimum to perceived mean scores (the service adequacy gap) for each dimension of library service quality.

The following table displays m ean scores for each dim ension of library service quality measured by the LibQUAL +®
survey, where n is the num ber of respondents for each particular dimension. (For a m ore 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 A.

Dimension	Minimum Mean	Desired Mean	Perceived Mean	Adequacy Mean	Superiority Mean	n
Affect of Service	6.11	7.56	7.21	1.10	-0.35	6,909
Information Control	6.04	7.60	7.09	1.05	-0.51	7,027
Library as Place	6.18	7.89	6.95	0.77	-0.94	7,018
Overall	**6.11**	**7.67**	**7.09**	**0.99**	**-0.57**	**7,052**

The following table displays standard   deviation for each dim ension of libra ry service quality m easured by the
LibQUAL+® survey, where n is the num ber of respondents for   each particular dimension. (For a m ore 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 A.

Dimension	Minimum SD	Desired SD	Perceived SD	Adequacy SD	Superiority SD	n
Affect of Service	1.68	1.35	1.36	1.54	1.32	6,909
Information Control	1.58	1.31	1.29	1.51	1.38	7,027
Library as Place	1.65	1.25	1.50	1.83	1.67	7,018
Overall	**1.46**	**1.11**	**1.18**	**1.38**	**1.18**	**7,052**

4.4   Local Question Summary for Undergraduate

This table shows mean scores of each of the local questions added by the individual library or consortium, 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.

Question Text	Minimum Mean	Desired Mean	Perceived Mean	Adequacy Mean	Superiority Mean	n
Informing me of useful library services	5.38	6.86	6.31	0.93	-0.55	74
Librarians teaching me how to access or manage information	5.98	7.60	6.89	0.91	-0.71	45
Teaching me how to access, evaluate, and use information	5.21	6.61	6.20	0.99	-0.41	75
Contribution to the intellectual atmosphere of the campus	6.23	7.69	7.23	1.00	-0.46	288
Using the library for research	6.90	8.33	7.26	0.36	-1.07	42
The multimedia (CD / DVD / video / audio) collections I need	5.20	6.84	7.26	2.06	0.42	376
Helping me understand and publish in open access journals and books	5.36	6.66	6.21	0.85	-0.45	312
Library services that facilitate the communication of scholarly research outcomes	5.62	7.18	6.71	1.09	-0.47	45
Ease of use of library-provided electronic books	5.99	7.42	6.98	0.99	-0.44	432
Provision of space and facilities that allow me to use my own laptop and/or other mobile device	6.70	8.03	7.44	0.74	-0.59	287
Services that help me manage and share my research data	5.14	6.98	6.62	1.48	-0.37	65
Availability of subject specialist assistance	6.08	7.10	6.76	0.67	-0.35	181
Easily finding relevant full-text articles on the library's website	5.95	7.42	6.79	0.84	-0.62	101
The Ask-A-Librarian service provides information assistance when and where I need it.	5.89	7.30	7.23	1.34	-0.07	167
Access to information resources that support patient care and evidence-based practice	6.03	7.16	7.01	0.98	-0.15	325
Convenient access to library collections	6.44	7.58	7.45	1.01	-0.13	84
Enabling me to find information myself 24 hours a day	6.52	7.91	7.39	0.88	-0.51	246
Interdisciplinary library needs being addressed	5.84	7.26	7.04	1.20	-0.22	246
Providing direction to self-navigate the library	6.14	7.72	7.21	1.07	-0.51	262
Resources added to library collections on request	5.95	7.26	6.81	0.86	-0.45	187
Space that facilitates quiet study	6.61	8.03	7.38	0.77	-0.65	363
Space for students to study and work in groups	6.04	7.58	7.05	1.01	-0.53	342

Library staff providing help that assists in finding information needed now while improving my research skills	6.20	7.36	7.14	0.94	-0.22	132
The library program teaches me how to access, evaluate, and use information	5.41	6.96	6.53	1.12	-0.43	264
Helpful online guides and tutorials	5.98	7.19	6.70	0.73	-0.49	120
An online catalog that is user-friendly for finding materials	6.40	8.01	6.57	0.17	-1.44	70
A service which can find for me rapidly and easily the documents not available in my own institution	6.13	7.63	7.21	1.08	-0.42	434
Library materials available when and where I need them	6.37	8.16	7.39	1.03	-0.76	38
Signs in the library are helpful and the library layout makes sense	6.04	7.70	7.01	0.97	-0.69	282
The value of the library's resources and services to me for my academic success	6.84	7.79	7.18	0.34	-0.61	114

This table displays the standard deviati ons of each of the local questions added by the individual library or consortium, 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.

Question Text	Minimum SD	Desired SD	Perceived SD	Adequacy SD	Superiority SD	n
Informing me of useful library services	1.88	1.79	1.59	1.70	1.86	74
Librarians teaching me how to access or manage information	2.22	1.57	1.43	2.18	1.65	45
Teaching me how to access, evaluate, and use information	2.09	2.07	1.85	1.74	2.14	75
Contribution to the intellectual atmosphere of the campus	1.97	1.46	1.57	1.90	1.64	288
Using the library for research	1.61	1.14	1.33	1.82	1.39	42
The multimedia (CD / DVD / video / audio) collections I need	2.34	2.23	1.61	2.27	2.03	376
Helping me understand and publish in open access journals and books	2.22	2.22	2.10	1.90	1.85	312
Library services that facilitate the communication of scholarly research outcomes	1.48	1.43	1.38	1.61	1.69	45
Ease of use of library-provided electronic books	1.99	1.68	1.70	1.95	1.80	432
Provision of space and facilities that allow me to use my own laptop and/or other mobile device	1.83	1.50	1.54	2.09	1.85	287
Services that help me manage and share my research data	2.01	1.78	1.63	1.82	1.85	65
Availability of subject specialist assistance	1.98	1.79	1.73	1.67	1.70	181
Easily finding relevant full-text articles on the library's website	2.03	1.57	1.76	2.32	1.95	101
The Ask-A-Librarian service provides information assistance when and where I need it.	2.07	1.69	1.71	2.02	1.57	167
Access to information resources that support patient care and evidence-based practice	2.02	1.76	1.66	1.82	1.60	325
Convenient access to library collections	1.90	1.76	1.68	1.87	1.82	84
Enabling me to find information myself 24 hours a day	1.94	1.31	1.57	1.94	1.59	246
Interdisciplinary library needs being addressed	2.13	1.76	1.59	1.95	1.71	246
Providing direction to self-navigate the library	1.86	1.45	1.51	1.89	1.76	262
Resources added to library collections on request	2.10	1.81	1.82	1.85	1.89	187
Space that facilitates quiet study	1.90	1.35	1.45	2.05	1.64	363
Space for students to study and work in groups	1.85	1.65	1.63	2.12	2.04	342
Library staff providing help that assists in finding information needed now while improving my research skills	1.78	1.68	1.58	1.58	1.66	132
The library program teaches me how to access, evaluate, and use information	2.08	1.92	1.88	1.93	1.95	264
Helpful online guides and tutorials	2.06	1.75	1.81	1.96	1.50	120
An online catalog that is user-friendly for finding materials	1.91	1.27	1.66	2.25	1.94	70

Language: English (American)
Institution Type: College or University
Consortium: ARL
User Group: Undergraduate

A service which can find for me rapidly and easily the documents not available in my own institution	1.83	1.55	1.54	1.81	1.57	434
Library materials available when and where I need them	1.48	1.03	1.31	1.87	1.60	38
Signs in the library are helpful and the library layout makes sense	1.90	1.58	1.70	2.06	1.74	282
The value of the library's resources and services to me for my academic success	1.76	1.51	1.59	1.65	1.46	114

4.5   General Satisfaction Questions Summary for Undergraduate

This table displays the m ean score and standard deviati on for each of the general satisfaction questions: Satisfaction with Treatment, Satisfaction with Support, and Satisfaction with Overall Qua lity of Service, where *n* is the number of respondents for each question. These scor es are calculated from responses to th e general satisfaction questions on the LibQUAL+® survey, in which respondents rated their levels of general satisfaction on a scale from 1-9.

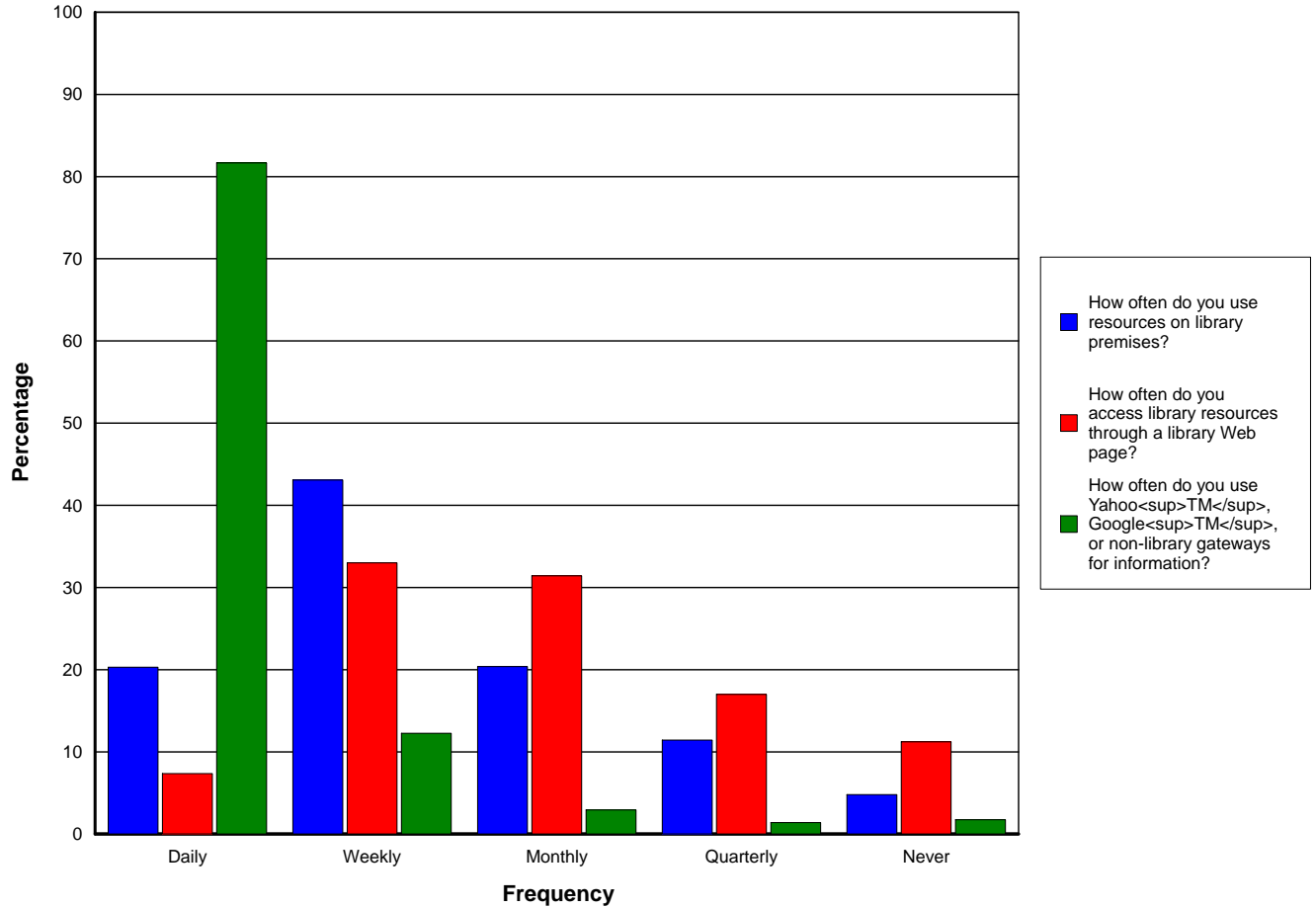| Satisfaction Question	Mean	SD	n
In general, I am satisfied with the way in which I am treated at the library.	7.80	1.30	3,880
In general, I am satisfied with library support for my learning, research, and/or teaching needs.	7.42	1.44	3,865
How would you rate the overall quality of the service provided by the library?	7.55	1.23	7,051

4.6   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 question. These scor es are calculated from responses to the inform ation 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.	6.24	1.87	2,679
The library aids my advancement in my academic discipline or work.	7.22	1.50	3,628
The library enables me to be more efficient in my academic pursuits or work.	7.44	1.46	3,627
The library helps me distinguish between trustworthy and untrustworthy information.	6.53	1.77	3,597
The library provides me with the information skills I need in my work or study.	7.02	1.56	2,653

4.7　　Library Use Summary for Undergraduate

This chart shows a graphi c representation of l ibrary use (bot h on t he premises and el ectronically), as wel l as use o f 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 t able below the chart displays the number and percentage of respondents who selected each option.

	Daily	Weekly	Monthly	Quarterly	Never	Total
How often do you use resources on library premises?	1,432	3,038	1,437	807	338	7,052
	20.31%	43.08%	20.38%	11.44%	4.79%	100.00%
How often do you access library resources through a library Web page?	519	2,327	2,215	1,199	791	7,051
	7.36%	33.00%	31.41%	17.00%	11.22%	100.00%
How often do you use Yahoo^{TM}, Google^{TM}, or non-library gateways for information?	5,758	865	207	98	123	7,051
	81.66%	12.27%	2.94%	1.39%	1.74%	100.00%

Language: **English (American)**
Institution Type: **College or University**
Consortium: **ARL**
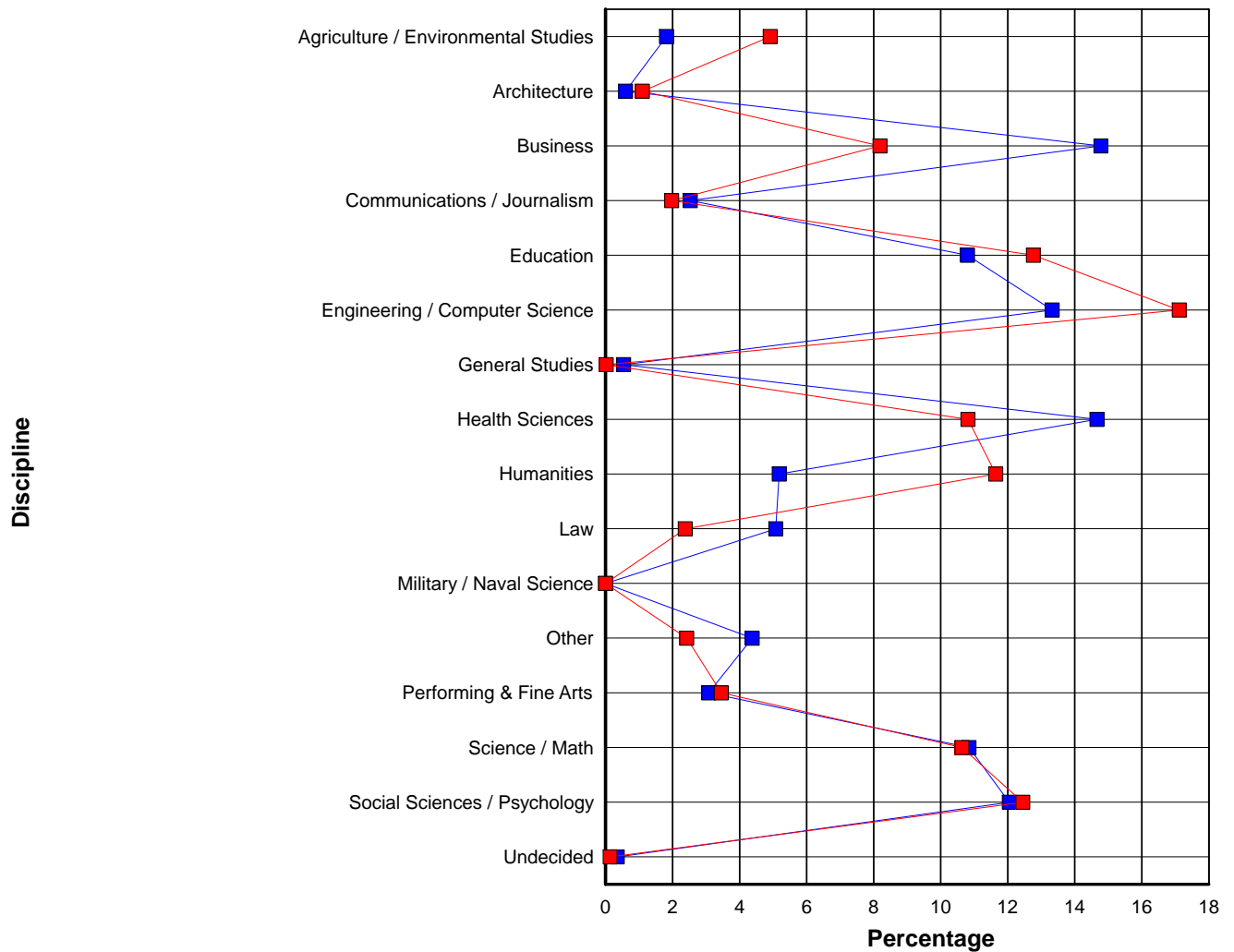User Group: **Undergraduate**

5   Summary for Graduate

5.1   Demographic Summary for Graduate

5.1.1   Population and Respondent Profiles by Standard Discipline

The chart and t able below show a breakdown of survey   respondents by discipline, based on user responses t o the demographic questions and the demographic data provided by institutions in the online Representativeness section.

This section shows survey respondents broken down based on the LibQUAL+® standard discipline categories. The chart maps percentage of respondents for each discipline in red. Population percentages for each discipline are mapped in blue. The table shows the num ber and percentage for each discipline, for the general population (N) and for survey respondents (n).

■ Respondent Profile by Discipline
■ Population Profile by Discipline

Discipline	Population N	Population %	Respondents n	Respondents %	%N - %n
Agriculture / Environmental Studies	850	1.82	219	4.91	-3.10
Architecture	280	0.60	49	1.10	-0.50
Business	6,914	14.78	365	8.19	6.59
Communications / Journalism	1,182	2.53	88	1.97	0.55
Education	5,052	10.80	569	12.76	-1.96
Engineering / Computer Science	6,235	13.33	763	17.12	-3.79
General Studies	252	0.54	1	0.02	0.52
Health Sciences	6,859	14.66	482	10.81	3.85
Humanities	2,424	5.18	519	11.64	-6.46
Law	2,376	5.08	106	2.38	2.70
Military / Naval Science	0	0.00	0	0.00	0.00
Other	2,048	4.38	108	2.42	1.96
Performing & Fine Arts	1,439	3.08	154	3.45	-0.38
Science / Math	5,073	10.84	474	10.63	0.21
Social Sciences / Psychology	5,635	12.05	555	12.45	-0.40
Undecided	163	0.35	6	0.13	0.21
Total:	**46,782**	**100.00**	**4,458**	**100.00**	**0.00**

5.1.2   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.

Age:	Respondents n	Respondents %
Under 18	1	0.03
18 - 22	182	6.03
23 - 30	1,904	63.05
31 - 45	756	25.03
46 - 65	172	5.70
Over 65	5	0.17
Total:	**3,020**	**100.00**

5.1.3   Respondent Profile by Sex:

The table below shows a breakdown of survey respondents by sex, based on user responses to the demographic questions and the demographic data provided by institutions in the online Representativeness section*. 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 Representativeness section. When population data is missing or incomplete, it is because this data was not provided.

Sex:	Population N	Population %	Respondents n	Respondents %
Female	22,209	52.70	1,123	54.59
Male	19,936	47.30	934	45.41
Total:	**42,145**	**100.00**	**2,057**	**100.00**

5.1.4   Respondent Profile by Full or part-time student?

Full or part-time student?	Population N	Population %	Respondents n	Respondents %
Full-time	31,370	68.06	2,616	86.74
Part-time	14,722	31.94	360	11.94
Does not apply / NA		0.00	40	1.33
Total:	**46,092**	**100.00**	**3,016**	**100.00**

5.2   Core Questions Summary for Graduate

This radar chart shows the aggregate resu lts for the core survey questions. Each axis represents one question. A code to identify each question is displayed at th e outer point of each axis. W hile questions for each dimension of library servic e quality are scattered random ly throughout the survey , on this chart they are grouped into sections: Af fect of Service , Information Control, and Library as Place.

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 following two tables show m ean scores and standard deviations for each question, where n is the number of respondents for each particular question. (For a more detailed explanation of th e headings, see the Introduction to thi s notebook.)

Legend:
- 🟥 Perceived Less Than Minimum
- 🟦 Perceived Greater Than Minimum
- 🟨 Perceived Less Than Desired
- 🟩 Perceived Greater Than Desired

Language: English (American)
Institution Type: College or University
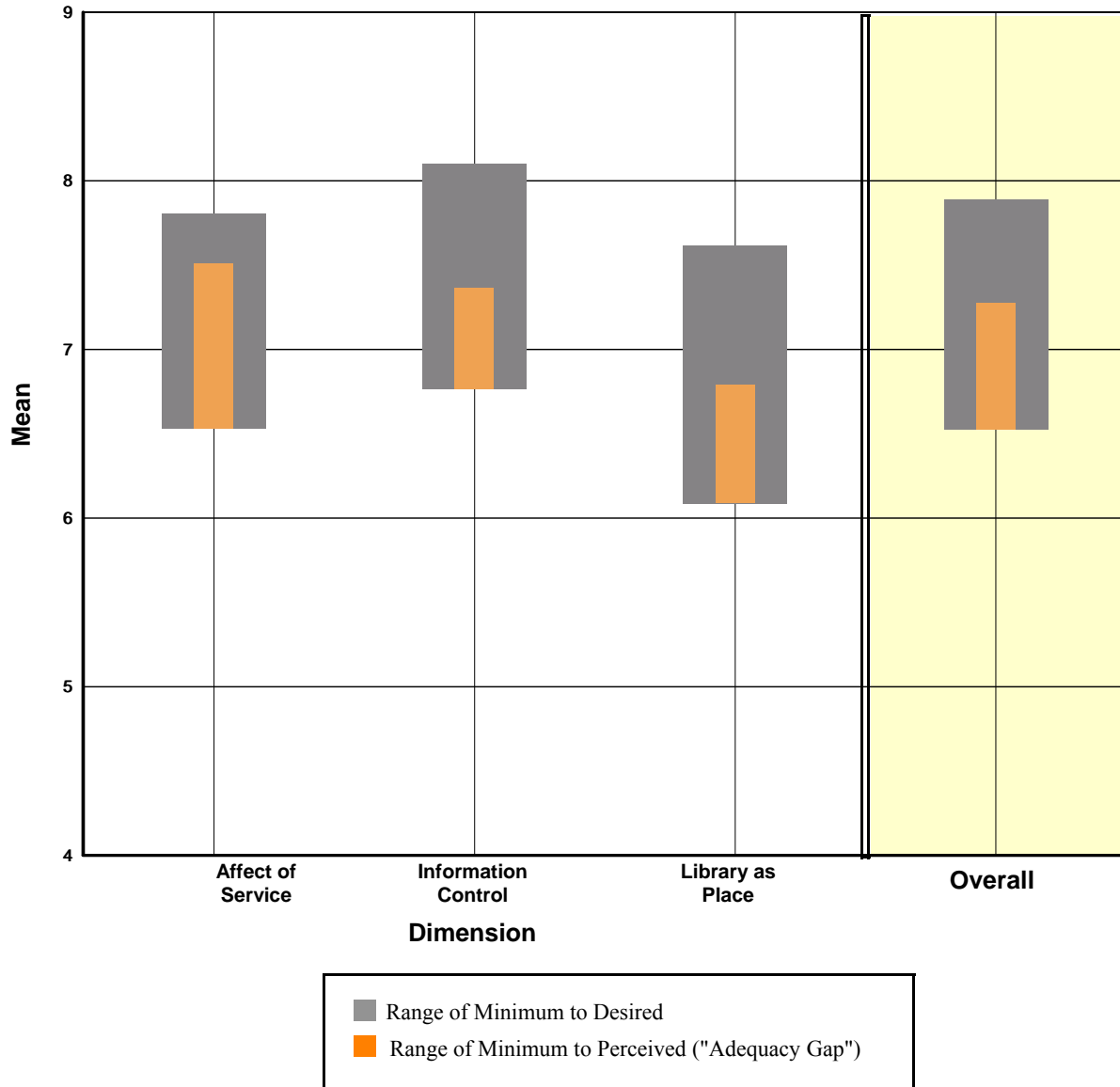Consortium: ARL
User Group: Graduate

ID	Question Text	Minimum Mean	Desired Mean	Perceived Mean	Adequacy Mean	Superiority Mean	n
Affect of Service							
AS-1	Employees who instill confidence in users	6.19	7.46	7.24	1.04	-0.23	1,099
AS-2	Giving users individual attention	5.84	7.13	7.03	1.19	-0.10	1,296
AS-3	Employees who are consistently courteous	6.73	8.00	7.80	1.07	-0.20	1,360
AS-4	Readiness to respond to users' questions	6.76	7.96	7.67	0.91	-0.29	1,261
AS-5	Employees who have the knowledge to answer user questions	6.78	8.00	7.57	0.79	-0.43	1,365
AS-6	Employees who deal with users in a caring fashion	6.57	7.91	7.61	1.04	-0.30	4,214
AS-7	Employees who understand the needs of their users	6.61	7.86	7.44	0.83	-0.42	1,335
AS-8	Willingness to help users	6.78	8.02	7.75	0.97	-0.27	1,252
AS-9	Dependability in handling users' service problems	6.63	7.80	7.39	0.76	-0.42	1,080
Information Control							
IC-1	Making electronic resources accessible from my home or office	7.21	8.38	7.53	0.32	-0.86	1,300
IC-2	A library Web site enabling me to locate information on my own	7.00	8.27	7.33	0.33	-0.94	1,653
IC-3	The printed library materials I need for my work	6.37	7.70	7.18	0.81	-0.52	1,364
IC-4	The electronic information resources I need	6.62	8.08	7.35	0.74	-0.73	4,389
IC-5	Modern equipment that lets me easily access needed information	6.82	8.07	7.44	0.61	-0.63	1,579
IC-6	Easy-to-use access tools that allow me to find things on my own	6.74	8.10	7.31	0.57	-0.79	1,585
IC-7	Making information easily accessible for independent use	6.97	8.18	7.55	0.58	-0.63	1,515
IC-8	Print and/or electronic journal collections I require for my work	7.06	8.23	7.56	0.50	-0.67	1,254
Library as Place							
LP-1	Library space that inspires study and learning	5.98	7.62	6.65	0.67	-0.97	4,135
LP-2	Quiet space for individual activities	6.47	7.76	6.90	0.43	-0.86	1,300
LP-3	A comfortable and inviting location	6.36	7.87	7.19	0.83	-0.68	1,311
LP-4	A getaway for study, learning, or research	6.44	7.87	7.07	0.63	-0.81	1,284
LP-5	Community space for group learning and group study	5.78	7.26	6.83	1.04	-0.44	1,161
Overall:		**6.53**	**7.89**	**7.28**	**0.75**	**-0.61**	**4,458**

ID	Question Text	Minimum SD	Desired SD	Perceived SD	Adequacy SD	Superiority SD	n
Affect of Service							
AS-1	Employees who instill confidence in users	1.92	1.64	1.50	1.70	1.57	1,099
AS-2	Giving users individual attention	2.10	1.81	1.62	1.76	1.57	1,296
AS-3	Employees who are consistently courteous	1.83	1.33	1.41	1.75	1.43	1,360
AS-4	Readiness to respond to users' questions	1.72	1.30	1.39	1.66	1.35	1,261
AS-5	Employees who have the knowledge to answer user questions	1.70	1.27	1.38	1.62	1.34	1,365
AS-6	Employees who deal with users in a caring fashion	1.81	1.41	1.44	1.79	1.53	4,214
AS-7	Employees who understand the needs of their users	1.74	1.40	1.39	1.62	1.40	1,335
AS-8	Willingness to help users	1.72	1.26	1.36	1.69	1.36	1,252
AS-9	Dependability in handling users' service problems	1.71	1.45	1.45	1.75	1.54	1,080
Information Control							
IC-1	Making electronic resources accessible from my home or office	1.65	1.14	1.51	1.74	1.50	1,300
IC-2	A library Web site enabling me to locate information on my own	1.67	1.14	1.50	1.82	1.60	1,653
IC-3	The printed library materials I need for my work	1.96	1.63	1.57	1.95	1.83	1,364
IC-4	The electronic information resources I need	1.74	1.34	1.41	1.83	1.59	4,389
IC-5	Modern equipment that lets me easily access needed information	1.67	1.30	1.43	1.67	1.45	1,579
IC-6	Easy-to-use access tools that allow me to find things on my own	1.65	1.25	1.47	1.76	1.53	1,585
IC-7	Making information easily accessible for independent use	1.60	1.17	1.29	1.61	1.34	1,515
IC-8	Print and/or electronic journal collections I require for my work	1.73	1.35	1.41	1.78	1.60	1,254
Library as Place							
LP-1	Library space that inspires study and learning	2.01	1.76	1.84	2.34	2.32	4,135
LP-2	Quiet space for individual activities	2.00	1.65	1.80	2.28	2.16	1,300
LP-3	A comfortable and inviting location	1.82	1.37	1.60	2.00	1.81	1,311
LP-4	A getaway for study, learning, or research	1.90	1.43	1.69	2.04	1.85	1,284
LP-5	Community space for group learning and group study	2.19	1.99	1.75	2.38	2.29	1,161
Overall:		**1.40**	**1.00**	**1.13**	**1.38**	**1.18**	**4,458**

Language: English (American)
Institution Type: College or University
Consortium: ARL
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 exterior bars represent the range of minimum to desired m ean scores fo r each dimension. The interior bars represent the range o f minimum to perceived mean scores (the service adequacy gap) for each dimension of library service quality.

Range of Minimum to Desired

Range of Minimum to Perceived ("Adequacy Gap")

The following table displays m ean scores for each dim ension of library service quality measured by the LibQUAL +®
survey, where n is the num ber of respondents for each particular dimension. (For a m ore 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 A.

Dimension	Minimum Mean	Desired Mean	Perceived Mean	Adequacy Mean	Superiority Mean	n
Affect of Service	6.53	7.81	7.51	0.98	-0.29	4,358
Information Control	6.77	8.10	7.36	0.60	-0.74	4,454
Library as Place	6.09	7.62	6.79	0.70	-0.83	4,261
Overall	**6.53**	**7.89**	**7.28**	**0.75**	**-0.61**	**4,458**

The following table displays standard   deviation for each dim ension of libra ry service quality m easured by the
LibQUAL+® survey, where *n* is the num ber of respondents for   each particular dimension. (For a m ore 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 A.

Dimension	Minimum SD	Desired SD	Perceived SD	Adequacy SD	Superiority SD	n
Affect of Service	1.64	1.26	1.28	1.53	1.29	4,358
Information Control	1.44	1.03	1.20	1.48	1.27	4,454
Library as Place	1.84	1.55	1.63	2.06	2.00	4,261
Overall	**1.40**	**1.00**	**1.13**	**1.38**	**1.18**	**4,458**

5.4   Local Question Summary for Graduate

This table shows mean scores of each of the local questions added by the individual library or consortium, 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.

Question Text	Minimum Mean	Desired Mean	Perceived Mean	Adequacy Mean	Superiority Mean	n
Informing me of useful library services	5.50	6.98	6.40	0.90	-0.58	134
Librarians teaching me how to access or manage information	6.16	7.51	7.60	1.44	0.09	45
Teaching me how to access, evaluate, and use information	5.71	7.20	6.89	1.18	-0.30	122
Contribution to the intellectual atmosphere of the campus	6.31	7.54	7.15	0.84	-0.39	140
Using the library for research	7.20	8.55	7.05	-0.16	-1.50	44
The multimedia (CD / DVD / video / audio) collections I need	5.37	6.96	7.03	1.66	0.07	255
Helping me understand and publish in open access journals and books	6.21	7.46	6.70	0.49	-0.76	280
Library services that facilitate the communication of scholarly research outcomes	6.33	7.63	7.63	1.29	0.00	48
Ease of use of library-provided electronic books	6.91	8.19	7.39	0.48	-0.80	379
Provision of space and facilities that allow me to use my own laptop and/or other mobile device	6.49	7.79	7.38	0.90	-0.41	68
Services that help me manage and share my research data	5.98	7.36	6.63	0.65	-0.74	102
Availability of subject specialist assistance	6.26	7.29	7.06	0.79	-0.23	155
Easily finding relevant full-text articles on the library's website	7.00	8.29	7.38	0.38	-0.91	55
The Ask-A-Librarian service provides information assistance when and where I need it.	6.11	7.34	7.20	1.09	-0.14	64
Access to information resources that support patient care and evidence-based practice	6.50	7.68	7.46	0.96	-0.22	214
Convenient access to library collections	6.62	8.04	7.20	0.59	-0.83	133
Enabling me to find information myself 24 hours a day	7.16	8.38	7.44	0.28	-0.94	95
Interdisciplinary library needs being addressed	6.11	7.45	7.07	0.97	-0.37	123
Providing direction to self-navigate the library	5.77	7.35	7.16	1.39	-0.19	57
Resources added to library collections on request	6.34	7.55	7.09	0.75	-0.45	77
Space that facilitates quiet study	6.33	7.66	6.90	0.56	-0.76	105
Space for students to study and work in groups	5.71	7.20	6.74	1.03	-0.45	121

Library staff providing help that assists in finding information needed now while improving my research skills	6.91	7.85	7.44	0.53	-0.42	55
The library program teaches me how to access, evaluate, and use information	5.97	7.39	7.26	1.29	-0.13	160
Helpful online guides and tutorials	6.62	7.53	6.92	0.30	-0.60	53
An online catalog that is user-friendly for finding materials	7.38	8.54	6.80	-0.58	-1.74	50
A service which can find for me rapidly and easily the documents not available in my own institution	7.01	8.27	7.81	0.81	-0.46	346
Library materials available when and where I need them	6.85	8.13	7.40	0.55	-0.73	86
Signs in the library are helpful and the library layout makes sense	6.44	7.77	7.13	0.69	-0.64	61
The value of the library's resources and services to me for my academic success	7.33	8.09	7.66	0.33	-0.43	58

This table displays the standard deviati ons of each of the local questions added by the individual library or consortium, 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.

Question Text	Minimum SD	Desired SD	Perceived SD	Adequacy SD	Superiority SD	n
Informing me of useful library services	2.27	1.92	1.86	2.16	2.12	134
Librarians teaching me how to access or manage information	2.18	1.77	1.40	2.05	1.31	45
Teaching me how to access, evaluate, and use information	2.04	1.80	1.62	1.85	1.72	122
Contribution to the intellectual atmosphere of the campus	1.93	1.84	1.59	1.82	1.93	140
Using the library for research	2.19	0.95	1.95	1.93	1.93	44
The multimedia (CD / DVD / video / audio) collections I need	2.43	2.06	1.72	2.26	2.03	255
Helping me understand and publish in open access journals and books	2.20	2.02	2.04	1.95	1.88	280
Library services that facilitate the communication of scholarly research outcomes	2.16	1.52	1.23	1.97	1.25	48
Ease of use of library-provided electronic books	1.75	1.29	1.55	1.81	1.66	379
Provision of space and facilities that allow me to use my own laptop and/or other mobile device	1.63	1.69	1.49	1.89	1.73	68
Services that help me manage and share my research data	1.87	1.72	1.82	1.82	2.15	102
Availability of subject specialist assistance	2.14	1.85	1.80	1.74	1.55	155
Easily finding relevant full-text articles on the library's website	2.12	1.50	1.68	2.18	2.05	55
The Ask-A-Librarian service provides information assistance when and where I need it.	1.55	1.70	1.86	1.97	1.74	64
Access to information resources that support patient care and evidence-based practice	1.97	1.74	1.58	1.78	1.67	214
Convenient access to library collections	1.72	1.28	1.42	1.86	1.54	133
Enabling me to find information myself 24 hours a day	1.71	1.06	1.43	1.92	1.51	95
Interdisciplinary library needs being addressed	2.14	1.81	1.53	2.20	2.05	123
Providing direction to self-navigate the library	1.80	1.62	1.44	2.02	1.67	57
Resources added to library collections on request	1.95	1.61	1.70	2.15	1.93	77
Space that facilitates quiet study	1.90	1.79	1.64	2.35	2.08	105
Space for students to study and work in groups	2.11	1.89	1.75	2.18	2.08	121
Library staff providing help that assists in finding information needed now while improving my research skills	1.77	1.25	1.52	2.01	1.33	55
The library program teaches me how to access, evaluate, and use information	2.10	1.84	1.65	2.07	2.07	160
Helpful online guides and tutorials	1.96	1.50	1.52	1.68	1.74	53
An online catalog that is user-friendly for finding materials	1.26	0.79	1.80	1.91	1.84	50

A service which can find for me rapidly and easily the documents not available in my own institution	1.66	1.18	1.31	1.69	1.41	346
Library materials available when and where I need them	1.42	1.18	1.40	1.86	1.80	86
Signs in the library are helpful and the library layout makes sense	1.67	1.57	1.35	1.57	1.63	61
The value of the library's resources and services to me for my academic success	1.67	1.39	1.52	1.41	1.57	58

5.5   General Satisfaction Questions Summary for Graduate

This table displays the m ean score and standard deviati on for each of the general satisfaction questions: Satisfaction with Treatment, Satisfaction with Support, and Satisfaction with Overall Qua lity of Service, where *n* is the number of respondents for each question. These scor es are calculated from responses to th e general satisfaction questions on the LibQUAL+® survey, in which respondents rated their levels of general satisfaction on a scale from 1-9.

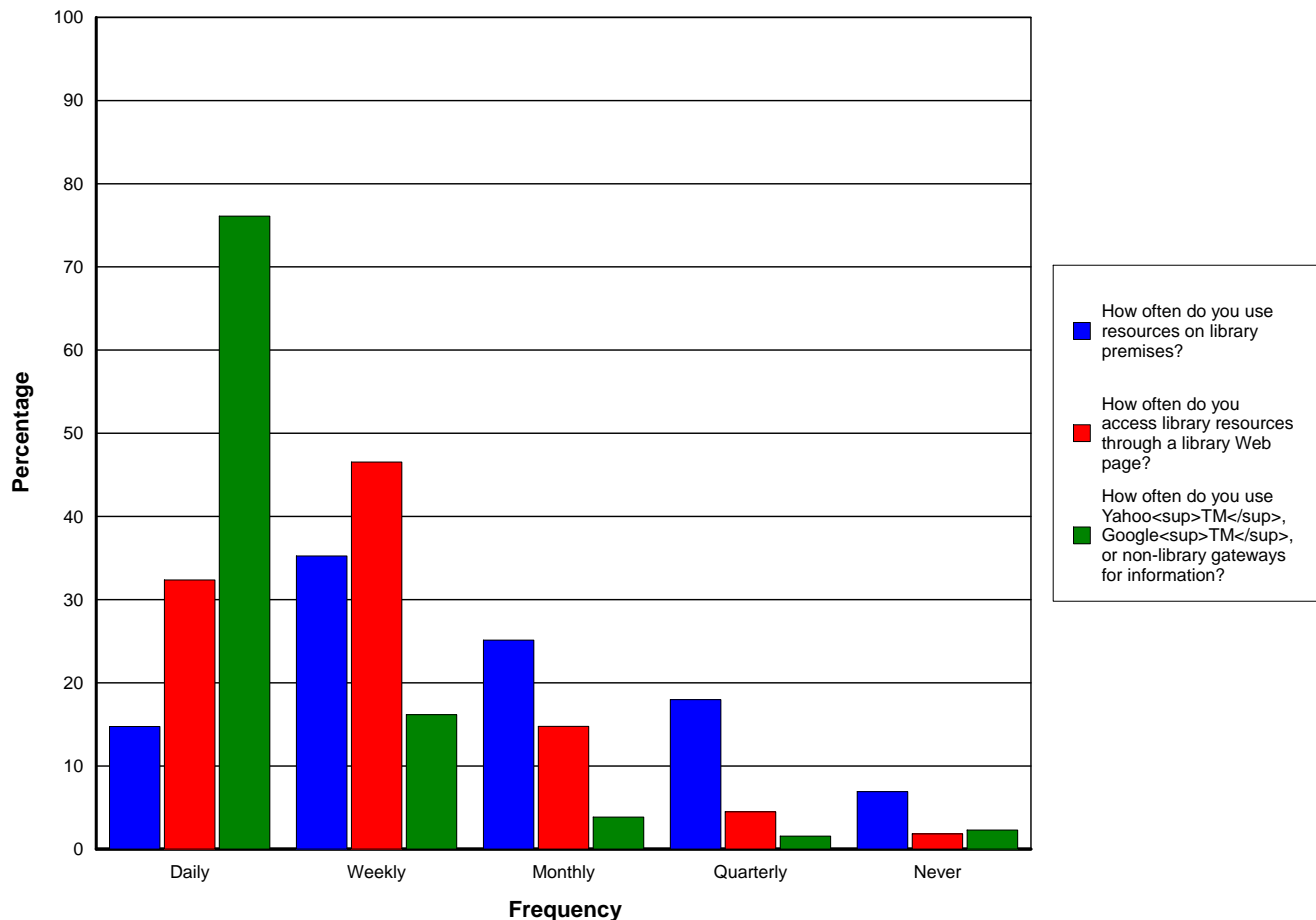| Satisfaction Question	Mean	SD	n
In general, I am satisfied with the way in which I am treated at the library.	7.81	1.31	2,399
In general, I am satisfied with library support for my learning, research, and/or teaching needs.	7.58	1.37	2,419
How would you rate the overall quality of the service provided by the library?	7.64	1.20	4,458

5.6   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 question. These scor es 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.	6.61	1.87	1,599
The library aids my advancement in my academic discipline or work.	7.56	1.44	2,211
The library enables me to be more efficient in my academic pursuits or work.	7.52	1.48	2,270
The library helps me distinguish between trustworthy and untrustworthy information.	6.50	1.84	2,315
The library provides me with the information skills I need in my work or study.	7.22	1.53	1,601

5.7   Library Use Summary for Graduate

This chart shows a graphi c representation of l ibrary use (bot h on t he premises and el ectronically), as wel l as use o f 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 t able below the chart displays the number and percentage of respondents who selected each option.

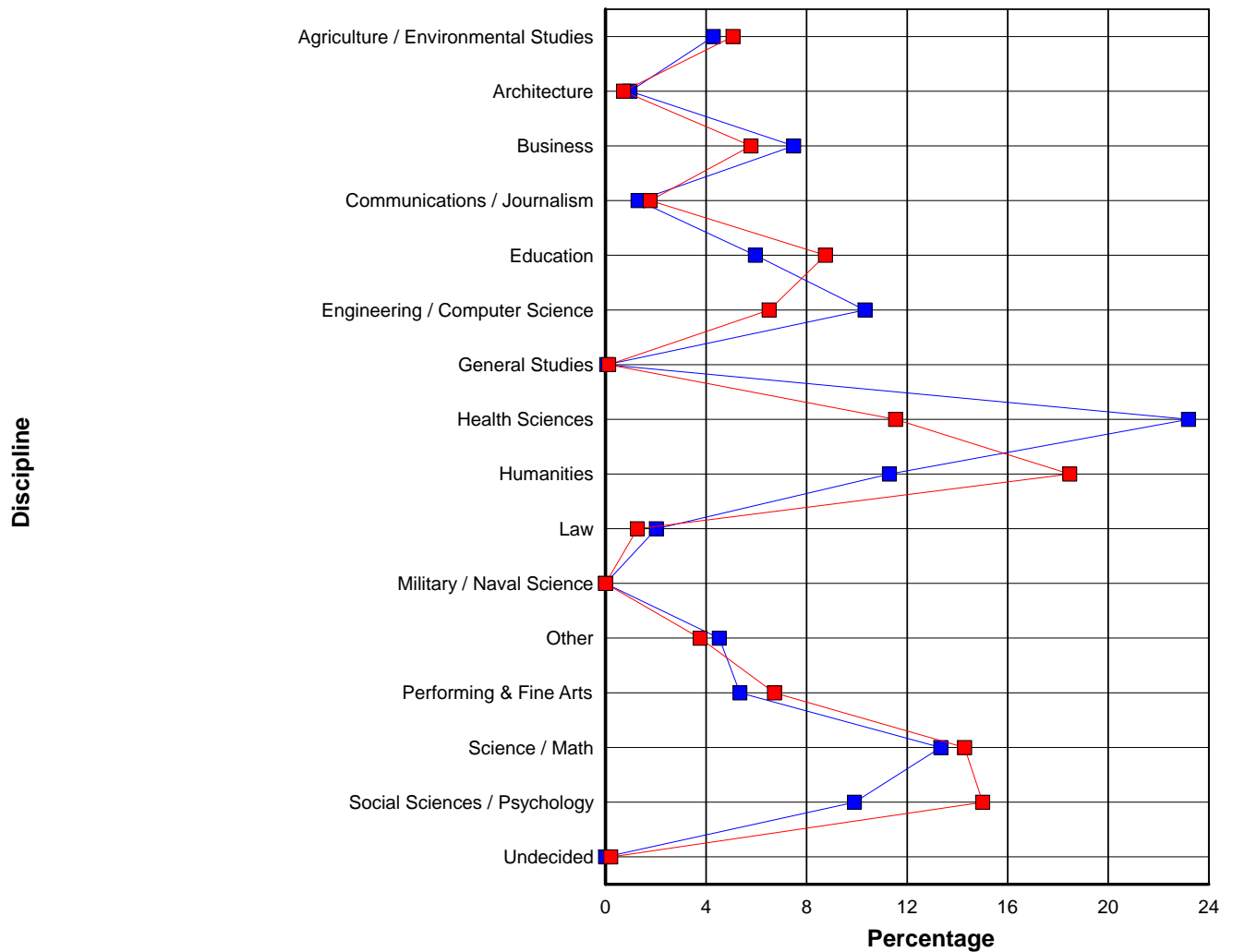|	**Daily**	**Weekly**	**Monthly**	**Quarterly**	**Never**	**Total**
How often do you use resources on library premises?	657	1,571	1,120	801	308	4,457
	14.74%	35.25%	25.13%	17.97%	6.91%	100.00%
How often do you access library resources through a library Web page?	1,443	2,075	658	200	82	4,458
	32.37%	46.55%	14.76%	4.49%	1.84%	100.00%
How often do you use Yahoo^{TM}, Google^{TM}, or non-library gateways for information?	3,391	720	172	70	102	4,455
	76.12%	16.16%	3.86%	1.57%	2.29%	100.00%

6   Summary for Faculty

6.1   Demographic Summary for Faculty

6.1.1   Population and Respondent Profiles by Standard Discipline

The chart and t able below show a breakdown of survey   respondents by discipline, based on user responses t o the demographic questions and the demographic data provided by institutions in the online Representativeness section.

This section shows survey respondents broken down based on the LibQUAL+® standard discipline categories. The chart maps percentage of respondents for each discipline in red. Population percentages for each discipline are mapped in blue. The table shows the num ber and percentage for each discipline, for the general population (N) and for survey respondents (n).

■ Respondent Profile by Discipline
■ Population Profile by Discipline

Discipline	Population N	Population %	Respondents n	Respondents %	%N - %n
Agriculture / Environmental Studies	908	4.29	120	5.07	-0.78
Architecture	206	0.97	17	0.72	0.25
Business	1,585	7.49	137	5.79	1.70
Communications / Journalism	274	1.29	42	1.78	-0.48
Education	1,262	5.96	207	8.75	-2.79
Engineering / Computer Science	2,185	10.32	154	6.51	3.81
General Studies	10	0.05	3	0.13	-0.08
Health Sciences	4,910	23.19	273	11.54	11.66
Humanities	2,391	11.29	437	18.47	-7.18
Law	428	2.02	30	1.27	0.75
Military / Naval Science	0	0.00	0	0.00	0.00
Other	958	4.53	89	3.76	0.76
Performing & Fine Arts	1,132	5.35	159	6.72	-1.37
Science / Math	2,823	13.34	338	14.29	-0.95
Social Sciences / Psychology	2,097	9.91	355	15.00	-5.10
Undecided	0	0.00	5	0.21	-0.21
Total:	**21,169**	**100.00**	**2,366**	**100.00**	**0.00**

6.1.2   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.

Age:	Respondents n	Respondents %
Under 18	0	0.00
18 - 22	3	0.16
23 - 30	67	3.48
31 - 45	733	38.12
46 - 65	940	48.88
Over 65	180	9.36
Total:	**1,923**	**100.00**

6.1.3   Respondent Profile by Sex:

The table below shows a breakdown of survey respondents by sex, based on user responses to the demographic questions and the demographic data provided by institutions in the online Representativeness section*. 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 Representativeness section. When population data is missing or incomplete, it is because this data was not provided.

Sex:	Population N	Population %	Respondents n	Respondents %
Female	5,854	38.01	583	41.38
Male	9,547	61.99	826	58.62
Total:	**15,401**	**100.00**	**1,409**	**100.00**

6.1.4   Respondent Profile by Full or part-time student?

Full or part-time student?	Population N	Population %	Respondents n	Respondents %
Full-time	7,425	56.67	64	3.37
Part-time	1,314	10.03	25	1.32
Does not apply / NA	4,363	33.30	1,809	95.31
Total:	**13,102**	**100.00**	**1,898**	**100.00**

6.2   Core Questions Summary for Faculty

This radar chart shows the aggregate resu lts for the core survey questions. Each axis represents one question. A code to identify each question is displayed at th e outer point of each axis. W hile questions for each dimension of library service quality are scattered random ly throughout the survey , on this chart they are grouped into sections: Af fect of Service , Information Control, and Library as Place.

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 following two tables show m ean scores and standard deviations for each question, where n is the number of respondents for each particular question. (For a more detailed explanation of th e headings, see the Introduction to thi s notebook.)
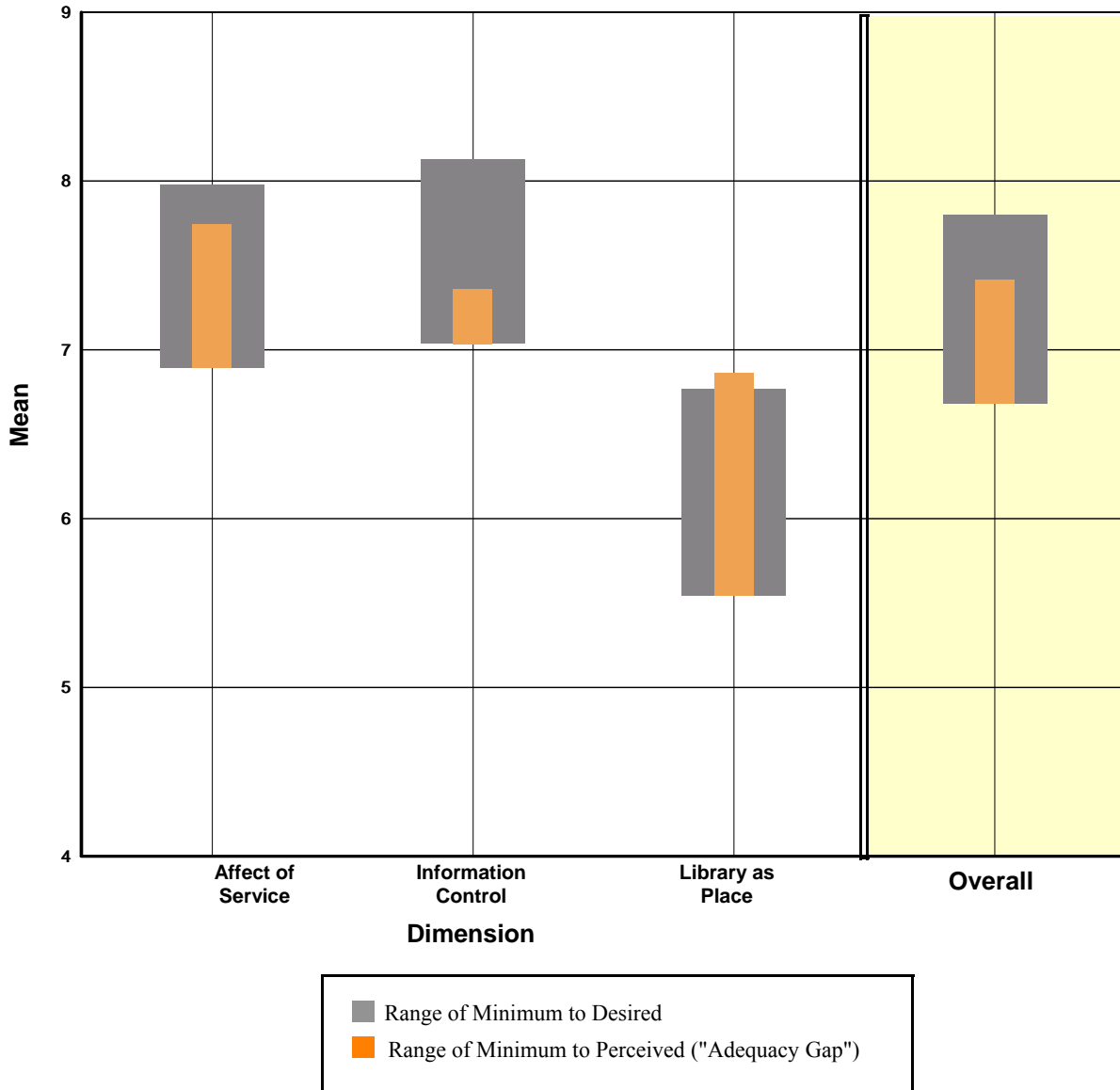

Language:	English (American)
Institution Type:	College or University
Consortium:	ARL
User Group:	Faculty

ID	Question Text	Minimum Mean	Desired Mean	Perceived Mean	Adequacy Mean	Superiority Mean	n
Affect of Service							
AS-1	Employees who instill confidence in users	6.65	7.83	7.53	0.87	-0.30	599
AS-2	Giving users individual attention	6.34	7.51	7.41	1.07	-0.10	693
AS-3	Employees who are consistently courteous	7.12	8.15	8.06	0.95	-0.09	721
AS-4	Readiness to respond to users' questions	7.08	8.12	7.84	0.76	-0.28	665
AS-5	Employees who have the knowledge to answer user questions	7.08	8.13	7.75	0.66	-0.39	720
AS-6	Employees who deal with users in a caring fashion	6.93	8.06	7.86	0.93	-0.20	2,269
AS-7	Employees who understand the needs of their users	7.13	8.11	7.67	0.55	-0.44	750
AS-8	Willingness to help users	7.18	8.17	7.99	0.81	-0.18	695
AS-9	Dependability in handling users' service problems	7.14	8.20	7.69	0.55	-0.51	539
Information Control							
IC-1	Making electronic resources accessible from my home or office	7.50	8.51	7.65	0.15	-0.86	689
IC-2	A library Web site enabling me to locate information on my own	7.35	8.36	7.18	-0.17	-1.18	878
IC-3	The printed library materials I need for my work	6.30	7.50	7.12	0.81	-0.38	725
IC-4	The electronic information resources I need	6.95	8.11	7.42	0.47	-0.69	2,347
IC-5	Modern equipment that lets me easily access needed information	7.04	8.05	7.48	0.44	-0.58	758
IC-6	Easy-to-use access tools that allow me to find things on my own	7.14	8.23	7.28	0.14	-0.95	861
IC-7	Making information easily accessible for independent use	7.21	8.30	7.56	0.35	-0.74	798
IC-8	Print and/or electronic journal collections I require for my work	7.43	8.33	7.49	0.06	-0.83	700
Library as Place							
LP-1	Library space that inspires study and learning	5.38	6.64	6.75	1.37	0.11	1,916
LP-2	Quiet space for individual activities	5.71	6.86	6.92	1.21	0.05	542
LP-3	A comfortable and inviting location	5.92	7.30	7.20	1.28	-0.10	633
LP-4	A getaway for study, learning, or research	6.19	7.30	7.17	0.97	-0.13	578
LP-5	Community space for group learning and group study	5.18	6.23	6.72	1.54	0.49	461
Overall:		**6.68**	**7.80**	**7.41**	**0.73**	**-0.39**	**2,369**

ID	Question Text	Minimum SD	Desired SD	Perceived SD	Adequacy SD	Superiority SD	n
Affect of Service							
AS-1	Employees who instill confidence in users	1.91	1.53	1.49	1.90	1.63	599
AS-2	Giving users individual attention	1.92	1.63	1.56	1.93	1.63	693
AS-3	Employees who are consistently courteous	1.70	1.30	1.17	1.70	1.40	721
AS-4	Readiness to respond to users' questions	1.65	1.28	1.33	1.65	1.39	665
AS-5	Employees who have the knowledge to answer user questions	1.78	1.41	1.45	1.71	1.49	720
AS-6	Employees who deal with users in a caring fashion	1.77	1.40	1.35	1.78	1.50	2,269
AS-7	Employees who understand the needs of their users	1.68	1.27	1.39	1.75	1.53	750
AS-8	Willingness to help users	1.69	1.30	1.30	1.69	1.39	695
AS-9	Dependability in handling users' service problems	1.60	1.29	1.41	1.68	1.47	539
Information Control							
IC-1	Making electronic resources accessible from my home or office	1.61	1.05	1.50	1.78	1.63	689
IC-2	A library Web site enabling me to locate information on my own	1.70	1.21	1.66	1.92	1.77	878
IC-3	The printed library materials I need for my work	2.08	1.88	1.64	2.23	2.09	725
IC-4	The electronic information resources I need	1.74	1.42	1.48	1.83	1.67	2,347
IC-5	Modern equipment that lets me easily access needed information	1.71	1.39	1.44	1.78	1.58	758
IC-6	Easy-to-use access tools that allow me to find things on my own	1.60	1.26	1.46	1.87	1.67	861
IC-7	Making information easily accessible for independent use	1.51	1.14	1.37	1.61	1.41	798
IC-8	Print and/or electronic journal collections I require for my work	1.64	1.33	1.57	1.84	1.63	700
Library as Place							
LP-1	Library space that inspires study and learning	2.31	2.37	1.89	2.52	2.65	1,916
LP-2	Quiet space for individual activities	2.43	2.28	1.81	2.49	2.30	542
LP-3	A comfortable and inviting location	2.08	1.90	1.73	2.23	2.08	633
LP-4	A getaway for study, learning, or research	2.35	2.21	1.75	2.39	2.25	578
LP-5	Community space for group learning and group study	2.44	2.51	1.77	2.47	2.46	461
Overall:		**1.36**	**1.10**	**1.11**	**1.37**	**1.21**	**2,369**

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 exterior bars represent the range of minimum to desired mean scores for each dimension. The interior bars represent the range of minimum to perceived mean scores (the service adequacy gap) for each dimension of library service quality.

	Range of Minimum to Desired
	Range of Minimum to Perceived ("Adequacy Gap")

The following table displays m ean scores for each dim ension of library service quality measured by the LibQUAL +®
survey, where n is the num ber of respondents for each particular dimension. (For a m ore 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 A.

Dimension	Minimum Mean	Desired Mean	Perceived Mean	Adequacy Mean	Superiority Mean	n
Affect of Service	6.89	7.98	7.75	0.85	-0.23	2,351
Information Control	7.04	8.13	7.36	0.32	-0.77	2,367
Library as Place	5.54	6.77	6.86	1.32	0.10	2,060
Overall	**6.68**	**7.80**	**7.41**	**0.73**	**-0.39**	**2,369**

The following table displays standard   deviation for each dim ension of libra ry service quality m easured by the
LibQUAL+® survey, where *n* is the num ber of respondents for   each particular dimension. (For a m ore 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 A.

Dimension	Minimum SD	Desired SD	Perceived SD	Adequacy SD	Superiority SD	n
Affect of Service	1.60	1.27	1.25	1.56	1.31	2,351
Information Control	1.41	1.09	1.27	1.52	1.36	2,367
Library as Place	2.17	2.15	1.72	2.23	2.24	2,060
Overall	**1.36**	**1.10**	**1.11**	**1.37**	**1.21**	**2,369**

6.4   Local Question Summary for Faculty

This table shows mean scores of each of the local questions added by the individual library or consortium, 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.

Question Text	Minimum Mean	Desired Mean	Perceived Mean	Adequacy Mean	Superiority Mean	n
Informing me of useful library services	6.01	7.02	6.73	0.72	-0.30	121
Librarians teaching me how to access or manage information	6.67	7.38	7.24	0.57	-0.14	21
Teaching me how to access, evaluate, and use information	5.89	7.33	7.44	1.55	0.12	104
Contribution to the intellectual atmosphere of the campus	6.94	8.02	7.02	0.08	-1.00	51
Using the library for research	6.52	7.37	6.96	0.44	-0.41	27
The multimedia (CD / DVD / video / audio) collections I need	6.04	7.13	6.96	0.91	-0.17	70
Helping me understand and publish in open access journals and books	5.08	6.36	6.29	1.21	-0.08	77
Library services that facilitate the communication of scholarly research outcomes	4.86	5.95	6.24	1.38	0.29	21
Ease of use of library-provided electronic books	6.89	7.97	6.86	-0.03	-1.11	91
Provision of space and facilities that allow me to use my own laptop and/or other mobile device	6.78	7.56	7.11	0.33	-0.44	54
Services that help me manage and share my research data	5.88	7.34	6.04	0.16	-1.29	68
Availability of subject specialist assistance	6.27	7.56	7.28	1.01	-0.29	108
Easily finding relevant full-text articles on the library's website	7.59	8.27	7.22	-0.38	-1.05	37
The Ask-A-Librarian service provides information assistance when and where I need it.	6.36	7.11	7.25	0.89	0.14	28
Access to information resources that support patient care and evidence-based practice	6.55	7.57	7.36	0.81	-0.21	42
Convenient access to library collections	6.80	7.88	7.11	0.31	-0.77	91
Enabling me to find information myself 24 hours a day	7.03	8.03	7.19	0.16	-0.84	32
Interdisciplinary library needs being addressed	6.38	7.18	7.03	0.64	-0.15	39
Providing direction to self-navigate the library	6.30	7.42	7.18	0.89	-0.24	71
Resources added to library collections on request	7.06	7.89	7.40	0.34	-0.49	35
Space that facilitates quiet study	5.83	7.19	7.03	1.20	-0.16	89
Space for students to study and work in groups	5.06	6.44	6.96	1.90	0.52	79

Library staff providing help that assists in finding information needed now while improving my research skills	6.79	7.74	7.58	0.79	-0.16	38
The library program teaches me how to access, evaluate, and use information	5.61	6.85	6.96	1.35	0.11	54
Helpful online guides and tutorials	6.32	7.16	7.24	0.92	0.08	38
An online catalog that is user-friendly for finding materials	7.57	8.36	5.32	-2.25	-3.04	28
A service which can find for me rapidly and easily the documents not available in my own institution	7.54	8.63	8.12	0.58	-0.51	115
Library materials available when and where I need them	7.28	8.03	7.16	-0.13	-0.88	32
Signs in the library are helpful and the library layout makes sense	5.91	7.32	7.29	1.38	-0.03	68
The value of the library's resources and services to me for my academic success	8.13	8.69	8.04	-0.08	-0.65	48

This table displays the standard deviati ons of each of the local questions added by the individual library or consortium, 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.

Question Text	Minimum SD	Desired SD	Perceived SD	Adequacy SD	Superiority SD	n
Informing me of useful library services	2.00	1.96	1.77	2.01	2.06	121
Librarians teaching me how to access or manage information	1.88	1.66	1.58	2.40	1.71	21
Teaching me how to access, evaluate, and use information	2.49	1.90	1.47	2.27	2.12	104
Contribution to the intellectual atmosphere of the campus	1.79	1.50	1.88	1.98	1.77	51
Using the library for research	2.62	2.86	1.58	2.24	2.42	27
The multimedia (CD / DVD / video / audio) collections I need	2.28	2.09	1.92	2.12	1.89	70
Helping me understand and publish in open access journals and books	2.32	2.50	1.83	2.52	2.55	77
Library services that facilitate the communication of scholarly research outcomes	2.22	2.38	1.95	1.99	1.59	21
Ease of use of library-provided electronic books	2.00	1.56	2.02	2.13	2.05	91
Provision of space and facilities that allow me to use my own laptop and/or other mobile device	1.97	2.10	1.96	1.91	2.12	54
Services that help me manage and share my research data	2.06	2.02	1.95	2.35	2.50	68
Availability of subject specialist assistance	1.89	1.57	1.55	1.72	1.49	108
Easily finding relevant full-text articles on the library's website	1.74	1.59	1.34	2.23	1.91	37
The Ask-A-Librarian service provides information assistance when and where I need it.	2.23	2.17	1.86	2.42	2.10	28
Access to information resources that support patient care and evidence-based practice	2.35	1.84	1.81	1.88	1.30	42
Convenient access to library collections	1.94	1.57	1.66	1.96	1.84	91
Enabling me to find information myself 24 hours a day	1.53	1.26	1.20	1.80	1.55	32
Interdisciplinary library needs being addressed	2.14	1.90	1.48	2.32	2.19	39
Providing direction to self-navigate the library	1.77	1.61	1.60	1.90	1.56	71
Resources added to library collections on request	1.76	1.43	2.10	2.18	2.54	35
Space that facilitates quiet study	2.35	2.17	1.58	2.54	2.24	89
Space for students to study and work in groups	2.20	2.22	1.58	2.37	2.68	79
Library staff providing help that assists in finding information needed now while improving my research skills	1.93	1.87	1.81	1.70	1.55	38
The library program teaches me how to access, evaluate, and use information	2.37	2.08	1.82	2.26	2.35	54
Helpful online guides and tutorials	1.92	2.18	1.85	1.95	2.01	38
An online catalog that is user-friendly for finding materials	1.45	1.16	2.26	2.69	2.33	28

A service which can find for me rapidly and easily the documents not available in my own institution	1.57	0.76	1.09	1.87	1.26	115
Library materials available when and where I need them	1.71	1.45	1.83	2.34	2.09	32
Signs in the library are helpful and the library layout makes sense	1.96	1.75	1.36	1.89	1.42	68
The value of the library's resources and services to me for my academic success	1.20	0.80	0.97	1.43	1.12	48

6.5   General Satisfaction Questions Summary for Faculty

This table displays the m ean score and standard deviati on for each of the general satisfaction questions: Satisfaction with Treatment, Satisfaction with Support, and Satisfaction with Overall Qua lity of Service, where *n* is the number of respondents for each question. These scor es are calculated from responses to th e general satisfaction questions on the LibQUAL+® survey, in which respondents rated their levels of general satisfaction on a scale from 1-9.

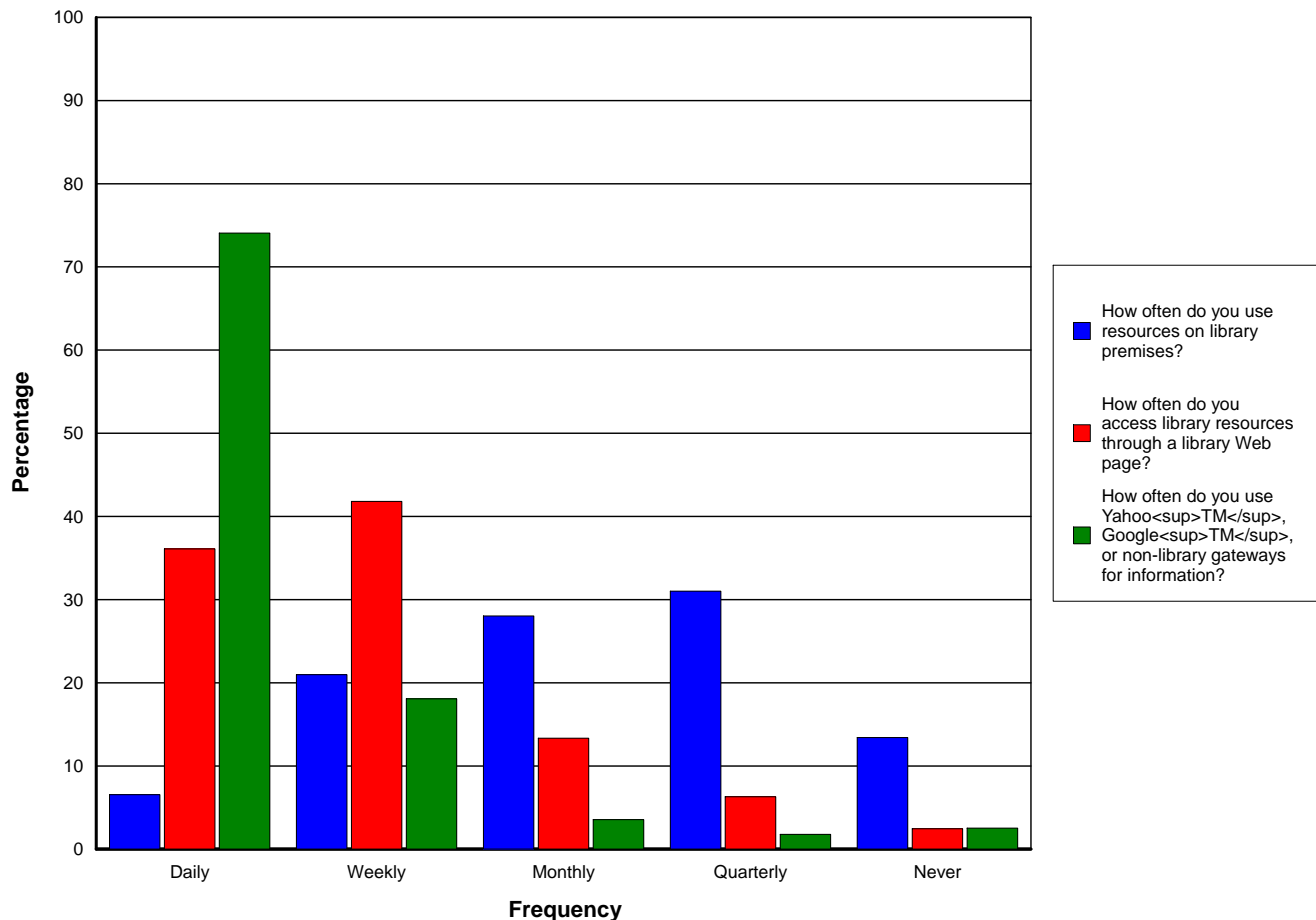| Satisfaction Question	Mean	SD	n
In general, I am satisfied with the way in which I am treated at the library.	8.03	1.24	1,239
In general, I am satisfied with library support for my learning, research, and/or teaching needs.	7.57	1.52	1,313
How would you rate the overall quality of the service provided by the library?	7.76	1.27	2,368

6.6   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 question. These scor es are calculated from responses to the inform ation 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.	6.58	2.07	871
The library aids my advancement in my academic discipline or work.	7.60	1.59	1,172
The library enables me to be more efficient in my academic pursuits or work.	7.66	1.54	1,180
The library helps me distinguish between trustworthy and untrustworthy information.	6.17	1.97	1,200
The library provides me with the information skills I need in my work or study.	7.07	1.72	868

6.7   Library Use Summary for Faculty

This chart shows a graphi c representation of l ibrary use (bot h on t he premises and el ectronically), as wel l as use o f 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 t able below the chart displays the number and percentage of respondents who selected each option.

	Daily	Weekly	Monthly	Quarterly	Never	Total
How often do you use resources on library premises?	155	497	664	735	318	2,369
	6.54%	20.98%	28.03%	31.03%	13.42%	100.00%
How often do you access library resources through a library Web page?	855	990	316	149	58	2,368
	36.11%	41.81%	13.34%	6.29%	2.45%	100.00%
How often do you use Yahoo^{TM}, Google^{TM}, or non-library gateways for information?	1,754	428	84	42	60	2,368
	74.07%	18.07%	3.55%	1.77%	2.53%	100.00%

Language: **English (American)**
Institution Type: **College or University**
Consortium: **ARL**
User Group: **Faculty**

7   Summary for Library Staff

7.1   Demographic Summary for Library Staff

7.1.1   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.

Age:	Respondents n	Respondents %
Under 18	0	0.00
18 - 22	1	0.59
23 - 30	19	11.24
31 - 45	53	31.36
46 - 65	89	52.66
Over 65	7	4.14
Total:	**169**	**100.00**

7.1.2   Respondent Profile by Sex:

The table below shows a breakdown of survey respondents by sex, based on user responses to the demographic questions and the demographic data provided by institutions in the online Representativeness section*. 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 Representativeness section. When population data is missing or incomplete, it is because this data was not provided.

Sex:	Respondents n	Respondents %
Female	77	68.75
Male	35	31.25
Total:	**112**	**100.00**

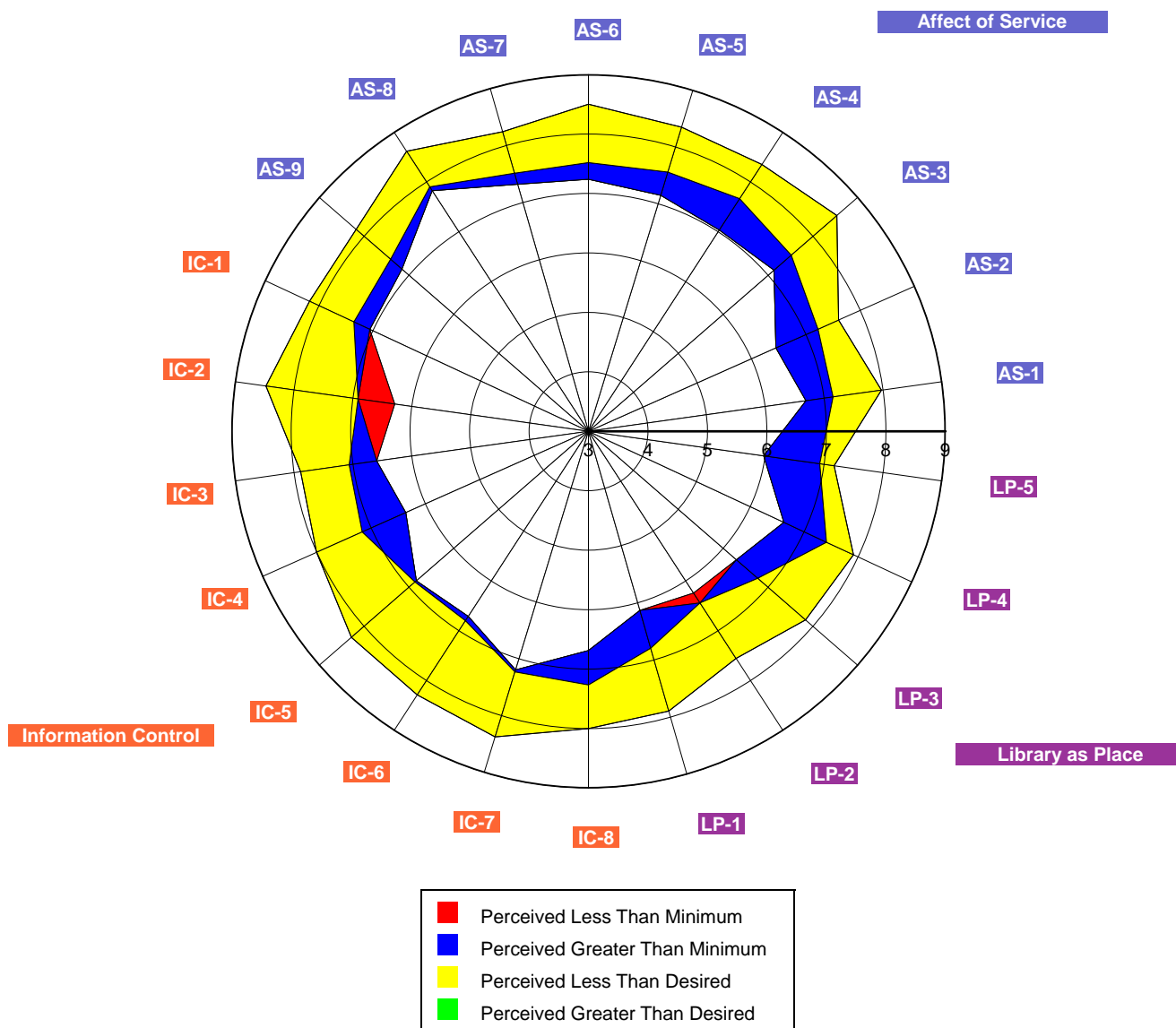### 7.1.3   Respondent Profile by Full or part-time student?

Full or part-time student?	Respondents n	Respondents %
Full-time	9	5.36
Part-time	7	4.17
Does not apply / NA	152	90.48
Total:	**168**	**100.00**

7.2 Core Questions Summary for Library Staff

This radar chart shows the aggregate resu lts for the core survey questions. Each axis represents one question. A code to identify each question is displayed at th e outer point of each axis. W hile questions for each dimension of library service quality are scattered random ly throughout the survey , on this chart they are grouped into sections: Af fect of Service, Information Control, and Library as Place.

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 following two tables show m ean scores and standard deviations for each question, where n is the number of respondents for each particular question. (For a more detailed explanation of th e headings, see the Introduction to thi s notebook.)

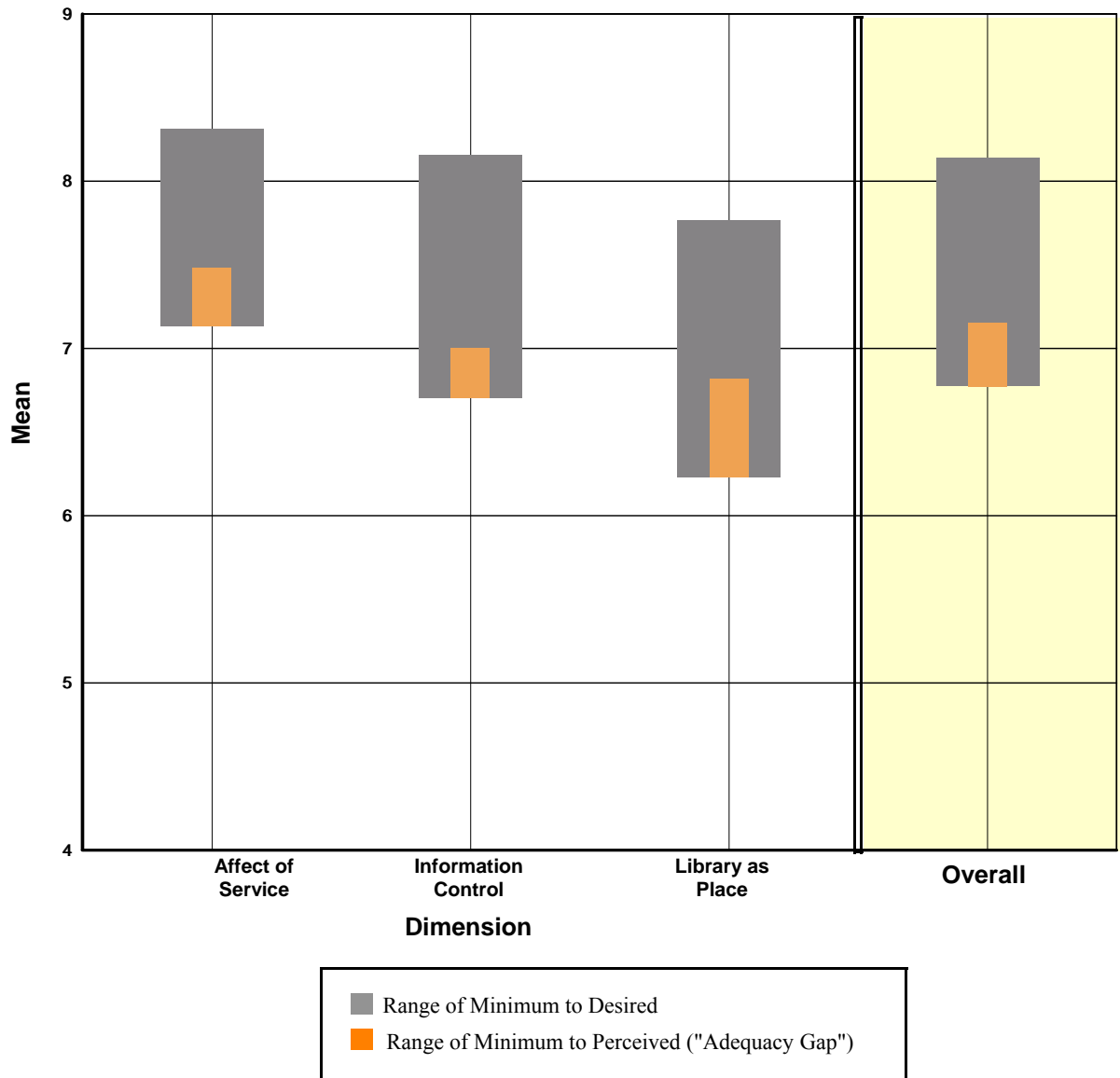

Legend:
- Perceived Less Than Minimum
- Perceived Greater Than Minimum
- Perceived Less Than Desired
- Perceived Greater Than Desired

Language: English (American)
Institution Type: College or University
Consortium: ARL
User Group: Library Staff

ID	Question Text	Minimum Mean	Desired Mean	Perceived Mean	Adequacy Mean	Superiority Mean	n
Affect of Service							
AS-1	Employees who instill confidence in users	6.69	7.97	7.15	0.46	-0.82	39
AS-2	Giving users individual attention	6.45	7.60	7.22	0.78	-0.38	58
AS-3	Employees who are consistently courteous	7.13	8.53	7.52	0.38	-1.02	60
AS-4	Readiness to respond to users' questions	7.04	8.35	7.67	0.63	-0.69	54
AS-5	Employees who have the knowledge to answer user questions	7.15	8.35	7.56	0.41	-0.79	66
AS-6	Employees who deal with users in a caring fashion	7.24	8.50	7.52	0.28	-0.98	221
AS-7	Employees who understand the needs of their users	7.32	8.24	7.52	0.19	-0.73	62
AS-8	Willingness to help users	7.83	8.62	7.90	0.08	-0.71	52
AS-9	Dependability in handling users' service problems	7.16	8.18	7.41	0.25	-0.76	51
Information Control							
IC-1	Making electronic resources accessible from my home or office	7.06	8.18	7.35	0.29	-0.82	51
IC-2	A library Web site enabling me to locate information on my own	6.91	8.48	6.29	-0.62	-2.19	69
IC-3	The printed library materials I need for my work	6.60	7.89	7.06	0.47	-0.82	62
IC-4	The electronic information resources I need	6.36	8.00	7.17	0.80	-0.84	217
IC-5	Modern equipment that lets me easily access needed information	6.84	8.28	6.87	0.03	-1.42	67
IC-6	Easy-to-use access tools that allow me to find things on my own	6.71	8.29	6.80	0.09	-1.49	80
IC-7	Making information easily accessible for independent use	7.20	8.38	7.23	0.04	-1.14	56
IC-8	Print and/or electronic journal collections I require for my work	6.69	8.00	7.27	0.58	-0.73	45
Library as Place							
LP-1	Library space that inspires study and learning	6.13	7.90	6.80	0.66	-1.10	202
LP-2	Quiet space for individual activities	6.44	7.56	6.24	-0.20	-1.31	45
LP-3	A comfortable and inviting location	6.30	7.84	6.77	0.48	-1.07	61
LP-4	A getaway for study, learning, or research	6.63	7.92	7.42	0.79	-0.50	48
LP-5	Community space for group learning and group study	5.98	7.17	6.93	0.95	-0.24	41
Overall:		**6.77**	**8.14**	**7.15**	**0.38**	**-0.98**	**225**

ID	Question Text	Minimum SD	Desired SD	Perceived SD	Adequacy SD	Superiority SD	n
Affect of Service							
AS-1	Employees who instill confidence in users	1.58	1.56	1.44	1.68	1.43	39
AS-2	Giving users individual attention	1.73	1.67	1.44	1.62	1.92	58
AS-3	Employees who are consistently courteous	1.73	1.02	1.40	1.66	1.44	60
AS-4	Readiness to respond to users' questions	1.58	1.01	1.20	1.14	1.06	54
AS-5	Employees who have the knowledge to answer user questions	1.55	0.83	1.08	1.35	1.14	66
AS-6	Employees who deal with users in a caring fashion	1.65	0.88	1.40	1.74	1.36	221
AS-7	Employees who understand the needs of their users	1.28	1.08	1.29	1.41	1.31	62
AS-8	Willingness to help users	1.22	0.80	1.03	1.41	1.19	52
AS-9	Dependability in handling users' service problems	1.43	0.99	1.39	1.55	1.38	51
Information Control							
IC-1	Making electronic resources accessible from my home or office	1.78	1.14	1.55	1.89	1.61	51
IC-2	A library Web site enabling me to locate information on my own	1.70	1.11	1.77	1.95	1.78	69
IC-3	The printed library materials I need for my work	1.98	1.48	1.66	1.79	1.61	62
IC-4	The electronic information resources I need	1.72	1.45	1.45	1.84	1.69	217
IC-5	Modern equipment that lets me easily access needed information	1.77	1.46	1.55	1.95	2.05	67
IC-6	Easy-to-use access tools that allow me to find things on my own	1.58	1.05	1.75	2.06	2.01	80
IC-7	Making information easily accessible for independent use	1.27	0.91	1.18	1.53	1.30	56
IC-8	Print and/or electronic journal collections I require for my work	1.64	1.46	1.39	1.78	1.40	45
Library as Place							
LP-1	Library space that inspires study and learning	1.75	1.51	1.68	1.96	2.01	202
LP-2	Quiet space for individual activities	1.74	1.95	2.01	2.46	2.58	45
LP-3	A comfortable and inviting location	1.79	1.63	1.75	2.02	2.32	61
LP-4	A getaway for study, learning, or research	1.77	1.50	1.43	1.91	1.65	48
LP-5	Community space for group learning and group study	1.93	1.69	1.10	1.83	1.41	41
Overall:		**1.34**	**0.99**	**1.13**	**1.21**	**1.12**	**225**

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 exterior bars represent the range of minimum to desired m ean scores fo r each dim ension. The interior bars represent the range o f minimum to perceived mean scores (the service adequacy gap) for each dimension of library service quality.

	Range of Minimum to Desired
	Range of Minimum to Perceived ("Adequacy Gap")

The following table displays m ean scores for each dim ension of library service quality measured by the LibQUAL +®
survey, where n is the num ber of respondents for each particular dimension. (For a m ore 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 A.

Dimension	Minimum Mean	Desired Mean	Perceived Mean	Adequacy Mean	Superiority Mean	n
Affect of Service	7.14	8.31	7.48	0.35	-0.83	225
Information Control	6.70	8.16	7.00	0.30	-1.16	224
Library as Place	6.23	7.77	6.82	0.59	-0.95	213
Overall	**6.77**	**8.14**	**7.15**	**0.38**	**-0.98**	**225**

The following table displays standard   deviation for each dim ension of libra ry service quality m easured by the
LibQUAL+® survey, where n is the num ber of respondents for   each particular dimension. (For a m ore 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 A.

Dimension	Minimum SD	Desired SD	Perceived SD	Adequacy SD	Superiority SD	n
Affect of Service	1.46	0.98	1.24	1.33	1.11	225
Information Control	1.40	1.08	1.28	1.45	1.40	224
Library as Place	1.69	1.50	1.57	1.88	1.85	213
Overall	**1.34**	**0.99**	**1.13**	**1.21**	**1.12**	**225**

7.4   Local Question Summary for Library Staff

This table shows mean scores of each of the local questions added by the individual library or consortium, 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.

Question Text	Minimum Mean	Desired Mean	Perceived Mean	Adequacy Mean	Superiority Mean	n
Informing me of useful library services	7.20	8.00	5.90	-1.30	-2.10	10
Librarians teaching me how to access or manage information	9.00	9.00	9.00	0.00	0.00	1
Teaching me how to access, evaluate, and use information	7.30	8.50	7.60	0.30	-0.90	10
Contribution to the intellectual atmosphere of the campus	6.87	7.93	6.73	-0.13	-1.20	15
Using the library for research	6.50	8.00	6.00	-0.50	-2.00	4
The multimedia (CD / DVD / video / audio) collections I need	6.00	8.50	7.50	1.50	-1.00	2
Helping me understand and publish in open access journals and books	4.00	6.00	8.00	4.00	2.00	1
Library services that facilitate the communication of scholarly research outcomes	7.33	8.33	7.11	-0.22	-1.22	9
Ease of use of library-provided electronic books	6.50	7.00	7.50	1.00	0.50	2
Provision of space and facilities that allow me to use my own laptop and/or other mobile device	7.00	9.00	9.00	2.00	0.00	1
Services that help me manage and share my research data	5.42	6.58	6.17	0.75	-0.42	12
Availability of subject specialist assistance	5.87	7.07	6.60	0.73	-0.47	15
The Ask-A-Librarian service provides information assistance when and where I need it.	6.00	9.00	9.00	3.00	0.00	1
Convenient access to library collections	7.29	8.07	8.07	0.79	0.00	14
Enabling me to find information myself 24 hours a day	7.67	8.33	8.33	0.67	0.00	3
Interdisciplinary library needs being addressed	7.38	8.50	7.88	0.50	-0.63	8
Providing direction to self-navigate the library	6.50	7.50	7.00	0.50	-0.50	2
Resources added to library collections on request	8.50	8.50	9.00	0.50	0.50	2
Space for students to study and work in groups	5.50	7.00	6.00	0.50	-1.00	2
The library program teaches me how to access, evaluate, and use information	6.08	8.00	7.33	1.25	-0.67	12
An online catalog that is user-friendly for finding materials	6.75	8.75	5.50	-1.25	-3.25	4
A service which can find for me rapidly and easily the documents not available in my own institution	6.00	7.00	8.00	2.00	1.00	1
Library materials available when and where I need them	6.70	8.40	7.40	0.70	-1.00	10

| Signs in the library are helpful and the library layout makes sense | 5.57 | 7.43 | 4.43 | -1.14 | -3.00 | 7 |

This table displays the standard deviati ons of each of the local questions added by the individual library or consortium, 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.

Question Text	Minimum SD	Desired SD	Perceived SD	Adequacy SD	Superiority SD	n
Informing me of useful library services	1.23	1.25	2.13	2.31	2.02	10
Librarians teaching me how to access or manage information						1
Teaching me how to access, evaluate, and use information	1.25	0.53	1.51	1.89	1.52	10
Contribution to the intellectual atmosphere of the campus	1.46	1.10	1.39	2.00	1.78	15
Using the library for research	3.11	1.41	1.63	2.08	0.82	4
The multimedia (CD / DVD / video / audio) collections I need	0.00	0.71	0.71	0.71	1.41	2
Helping me understand and publish in open access journals and books						1
Library services that facilitate the communication of scholarly research outcomes	1.22	0.71	1.05	1.20	1.09	9
Ease of use of library-provided electronic books	0.71	0.00	0.71	1.41	0.71	2
Provision of space and facilities that allow me to use my own laptop and/or other mobile device						1
Services that help me manage and share my research data	2.19	2.07	2.59	1.96	1.88	12
Availability of subject specialist assistance	2.17	2.55	2.23	2.46	2.53	15
The Ask-A-Librarian service provides information assistance when and where I need it.						1
Convenient access to library collections	1.54	1.14	0.92	2.01	1.71	14
Enabling me to find information myself 24 hours a day	1.53	0.58	0.58	2.08	1.00	3
Interdisciplinary library needs being addressed	1.41	0.76	1.13	1.51	1.19	8
Providing direction to self-navigate the library	0.71	0.71	0.00	0.71	0.71	2
Resources added to library collections on request	0.71	0.71	0.00	0.71	0.71	2
Space for students to study and work in groups	0.71	2.83	1.41	0.71	1.41	2
The library program teaches me how to access, evaluate, and use information	1.78	1.28	1.07	1.54	1.61	12
An online catalog that is user-friendly for finding materials	0.96	0.50	1.91	2.50	2.36	4
A service which can find for me rapidly and easily the documents not available in my own institution						1
Library materials available when and where I need them	1.06	0.70	0.97	1.34	1.25	10
Signs in the library are helpful and the library layout makes sense	2.30	1.72	2.57	3.44	3.51	7

7.5   General Satisfaction Questions Summary for Library Staff

This table displays the m ean score and standard deviati on for each of the general satisfaction questions: Satisfaction with Treatment, Satisfaction with Support, and Satisfaction with Overall Qua lity of Service, where n is the number of respondents for each question. These scor es are calculated from responses to th e general satisfaction questions on the LibQUAL+® survey, in which respondents rated their levels of general satisfaction on a scale from 1-9.

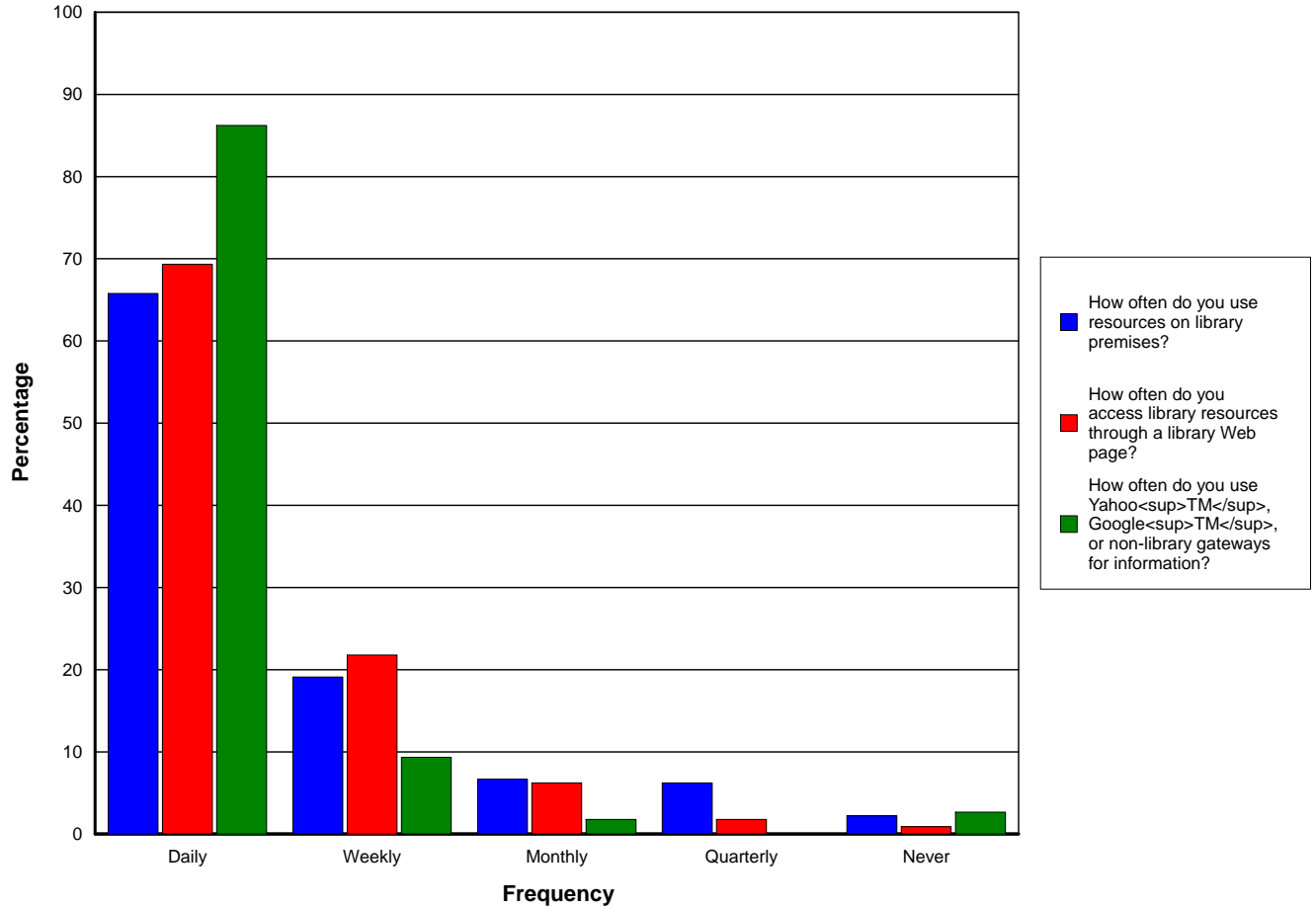| Satisfaction Question	Mean	SD	n
In general, I am satisfied with the way in which I am treated at the library.	7.55	1.40	109
In general, I am satisfied with library support for my learning, research, and/or teaching needs.	7.38	1.31	117
How would you rate the overall quality of the service provided by the library?	7.62	1.06	225

7.6   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 question. These scor es are calculated from responses to the inform ation 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.	7.03	1.46	68
The library aids my advancement in my academic discipline or work.	7.25	1.65	111
The library enables me to be more efficient in my academic pursuits or work.	7.39	1.30	94
The library helps me distinguish between trustworthy and untrustworthy information.	6.89	1.88	107
The library provides me with the information skills I need in my work or study.	7.27	1.41	73

7.7   Library Use Summary for Library Staff

This chart shows a graphi c representation of l ibrary use (bot h on t he premises and el ectronically), as wel l as use o f 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 t able below the chart displays the number and percentage of respondents who selected each option.

	Daily	Weekly	Monthly	Quarterly	Never	Total
How often do you use resources on library premises?	148	43	15	14	5	225
	65.78%	19.11%	6.67%	6.22%	2.22%	100.00%
How often do you access library resources through a library Web page?	156	49	14	4	2	225
	69.33%	21.78%	6.22%	1.78%	0.89%	100.00%
How often do you use Yahoo^{TM}, Google^{TM}, or non-library gateways for information?	194	21	4	0	6	225
	86.22%	9.33%	1.78%	0.00%	2.67%	100.00%

Language: **English (American)**
Institution Type: **College or University**
Consortium: **ARL**
User Group: **Library Staff**

8   Summary for Staff

8.1   Demographic Summary for Staff

8.1.1   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.

Age:	Respondents n	Respondents %
Under 18	0	0.00
18 - 22	14	2.59
23 - 30	135	25.00
31 - 45	183	33.89
46 - 65	201	37.22
Over 65	7	1.30
Total:	**540**	**100.00**

8.1.2   Respondent Profile by Sex:

The table below shows a breakdown of survey respondents by sex, based on user responses to the demographic questions and the demographic data provided by institutions in the online Representativeness section*. 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 Representativeness section. When population data is missing or incomplete, it is because this data was not provided.

Sex:	Respondents n	Respondents %
Female	242	61.58
Male	151	38.42
Total:	**393**	**100.00**

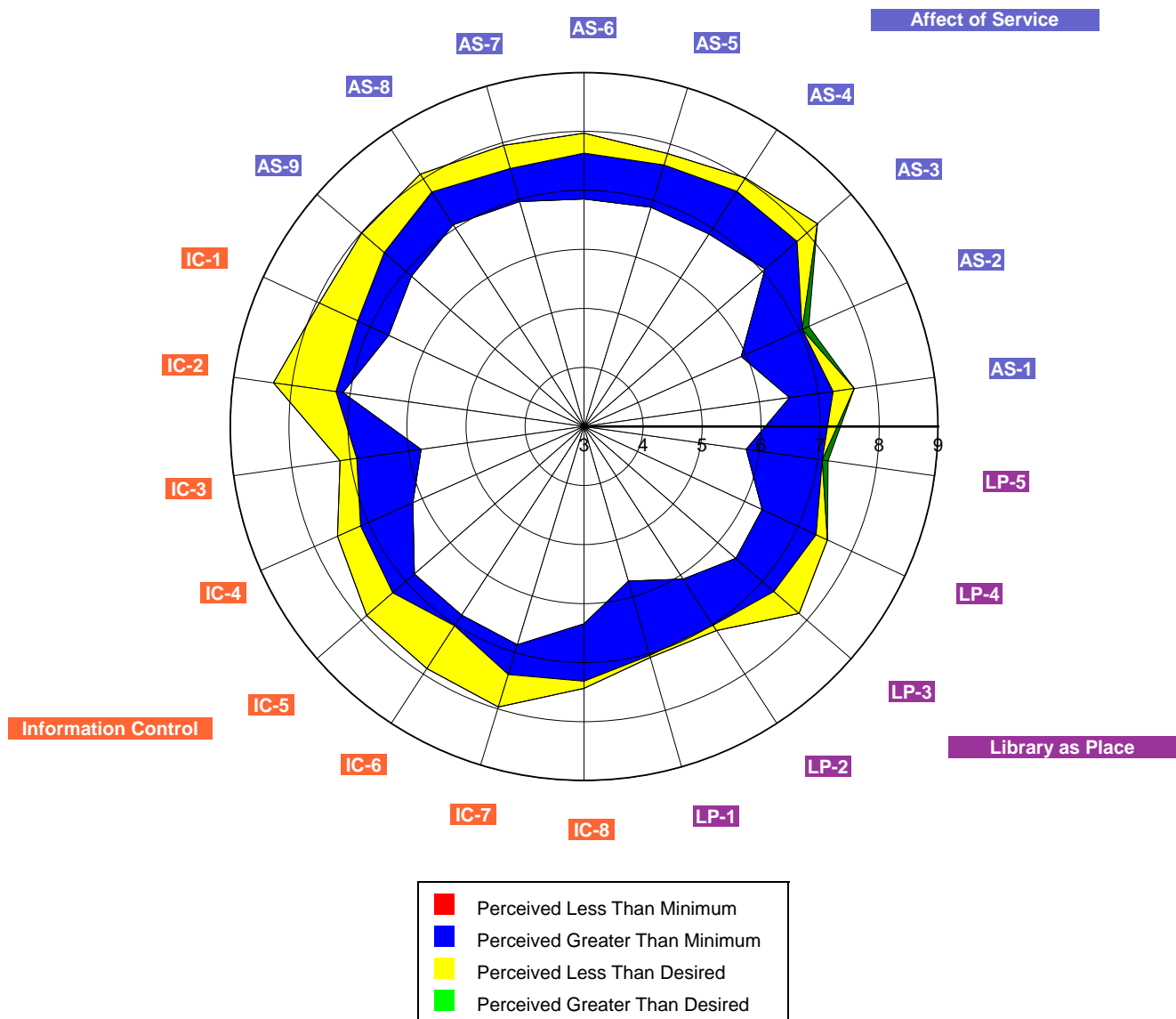### 8.1.3   Respondent Profile by Full or part-time student?

Full or part-time student?	Respondents n	Respondents %
Full-time	25	4.65
Part-time	47	8.74
Does not apply / NA	466	86.62
Total:	**538**	**100.00**

8.2   Core Questions Summary for Staff

This radar chart shows the aggregate resu lts for the core survey questions. Each axis represents one question. A code to identify each question is displayed at th e outer point of each axis. W hile questions for each dimension of library service quality are scattered random ly throughout the survey , on this chart they are grouped into sections: Af fect of Service, Information Control, and Library as Place.

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 following two tables show m ean scores and standard deviations for each question, where   n is the number of respondents for each particular question. (For a more detailed explanation of th e headings, see the Introduction to thi s notebook.)

	Perceived Less Than Minimum
	Perceived Greater Than Minimum
	Perceived Less Than Desired
	Perceived Greater Than Desired

Language:	English (American)
Institution Type:	College or University
Consortium:	ARL
User Group:	Staff

ID	Question Text	Minimum Mean	Desired Mean	Perceived Mean	Adequacy Mean	Superiority Mean	n
Affect of Service							
AS-1	Employees who instill confidence in users	6.52	7.62	7.26	0.75	-0.36	114
AS-2	Giving users individual attention	5.92	7.04	7.17	1.25	0.12	156
AS-3	Employees who are consistently courteous	7.06	8.24	7.78	0.72	-0.46	173
AS-4	Readiness to respond to users' questions	6.89	8.02	7.75	0.87	-0.27	141
AS-5	Employees who have the knowledge to answer user questions	6.88	7.84	7.63	0.75	-0.20	164
AS-6	Employees who deal with users in a caring fashion	6.85	7.97	7.63	0.78	-0.34	592
AS-7	Employees who understand the needs of their users	6.97	7.95	7.55	0.58	-0.41	172
AS-8	Willingness to help users	7.08	8.10	7.74	0.66	-0.36	145
AS-9	Dependability in handling users' service problems	6.88	7.99	7.49	0.61	-0.50	115
Information Control							
IC-1	Making electronic resources accessible from my home or office	6.65	7.95	7.23	0.58	-0.72	142
IC-2	A library Web site enabling me to locate information on my own	7.13	8.31	7.24	0.12	-1.07	188
IC-3	The printed library materials I need for my work	5.79	7.18	6.89	1.10	-0.28	137
IC-4	The electronic information resources I need	6.18	7.57	7.15	0.97	-0.43	576
IC-5	Modern equipment that lets me easily access needed information	6.81	7.88	7.30	0.49	-0.58	183
IC-6	Easy-to-use access tools that allow me to find things on my own	6.81	7.89	7.03	0.21	-0.86	191
IC-7	Making information easily accessible for independent use	6.87	7.97	7.39	0.53	-0.57	195
IC-8	Print and/or electronic journal collections I require for my work	6.34	7.44	7.31	0.97	-0.12	108
Library as Place							
LP-1	Library space that inspires study and learning	5.72	7.07	7.04	1.31	-0.04	505
LP-2	Quiet space for individual activities	6.08	7.12	7.02	0.93	-0.11	131
LP-3	A comfortable and inviting location	6.41	7.83	7.26	0.85	-0.57	150
LP-4	A getaway for study, learning, or research	6.33	7.55	7.34	1.01	-0.21	124
LP-5	Community space for group learning and group study	5.78	7.08	7.18	1.40	0.10	120
Overall:		**6.53**	**7.71**	**7.33**	**0.81**	**-0.37**	**618**

ID	Question Text	Minimum SD	Desired SD	Perceived SD	Adequacy SD	Superiority SD	n
Affect of Service							
AS-1	Employees who instill confidence in users	2.18	1.82	1.60	1.63	1.38	114
AS-2	Giving users individual attention	2.12	1.87	1.74	2.12	1.83	156
AS-3	Employees who are consistently courteous	1.69	1.31	1.46	1.79	1.58	173
AS-4	Readiness to respond to users' questions	1.82	1.40	1.49	2.08	1.68	141
AS-5	Employees who have the knowledge to answer user questions	1.82	1.50	1.32	1.67	1.45	164
AS-6	Employees who deal with users in a caring fashion	1.75	1.43	1.40	1.80	1.61	592
AS-7	Employees who understand the needs of their users	1.68	1.26	1.43	1.76	1.52	172
AS-8	Willingness to help users	1.87	1.28	1.49	1.91	1.39	145
AS-9	Dependability in handling users' service problems	1.85	1.56	1.37	1.80	1.61	115
Information Control							
IC-1	Making electronic resources accessible from my home or office	1.88	1.61	1.55	1.89	1.73	142
IC-2	A library Web site enabling me to locate information on my own	1.75	1.16	1.66	2.04	1.78	188
IC-3	The printed library materials I need for my work	2.07	1.94	1.58	2.02	1.82	137
IC-4	The electronic information resources I need	1.88	1.69	1.62	1.93	1.84	576
IC-5	Modern equipment that lets me easily access needed information	1.71	1.53	1.50	1.87	1.83	183
IC-6	Easy-to-use access tools that allow me to find things on my own	1.93	1.54	1.75	2.22	1.86	191
IC-7	Making information easily accessible for independent use	1.65	1.28	1.29	1.79	1.58	195
IC-8	Print and/or electronic journal collections I require for my work	2.27	2.15	1.67	2.24	2.05	108
Library as Place							
LP-1	Library space that inspires study and learning	2.16	2.15	1.74	2.38	2.48	505
LP-2	Quiet space for individual activities	2.34	2.19	1.61	2.43	2.29	131
LP-3	A comfortable and inviting location	1.79	1.37	1.72	2.03	1.89	150
LP-4	A getaway for study, learning, or research	1.98	1.72	1.44	2.13	1.97	124
LP-5	Community space for group learning and group study	2.14	2.04	1.42	2.16	1.96	120
Overall:		**1.46**	**1.21**	**1.22**	**1.50**	**1.32**	**618**

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 exterior bars represent the range of minimum to desired m ean scores fo r each dim ension. The interior bars represent the range o f minimum to perceived mean scores (the service adequacy gap) for each dimension of library service quality.

	Range of Minimum to Desired
	Range of Minimum to Perceived ("Adequacy Gap")

The following table displays m ean scores for each dim ension of library service quality measured by the LibQUAL +®
survey, where n is the num ber of respondents for each particular dimension. (For a m ore 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 A.

Dimension	Minimum Mean	Desired Mean	Perceived Mean	Adequacy Mean	Superiority Mean	n
Affect of Service	6.80	7.88	7.57	0.77	-0.32	610
Information Control	6.49	7.75	7.19	0.70	-0.56	610
Library as Place	5.95	7.22	7.13	1.18	-0.09	549
Overall	**6.53**	**7.71**	**7.33**	**0.81**	**-0.37**	**618**

The following table displays standard   deviation for each dim ension of libra ry service quality m easured by the
LibQUAL+® survey, where *n* is the num ber of respondents for   each particular dimension. (For a m ore 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 A.

Dimension	Minimum SD	Desired SD	Perceived SD	Adequacy SD	Superiority SD	n
Affect of Service	1.63	1.29	1.29	1.62	1.36	610
Information Control	1.56	1.34	1.36	1.67	1.53	610
Library as Place	1.93	1.84	1.51	2.05	2.05	549
Overall	**1.46**	**1.21**	**1.22**	**1.50**	**1.32**	**618**

Language: **English (American)**
Institution Type: **College or University**
Consortium: **ARL**
User Group: **Staff**

8.4   Local Question Summary for Staff

This table shows mean scores of each of the local questions added by the individual library or consortium, 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.

Question Text	Minimum Mean	Desired Mean	Perceived Mean	Adequacy Mean	Superiority Mean	n
Informing me of useful library services	6.23	7.62	6.92	0.69	-0.69	13
Librarians teaching me how to access or manage information	5.67	6.67	7.00	1.33	0.33	3
Teaching me how to access, evaluate, and use information	5.56	6.72	6.80	1.24	0.08	25
Contribution to the intellectual atmosphere of the campus	7.04	7.64	7.25	0.21	-0.40	53
Using the library for research	5.50	6.00	5.75	0.25	-0.25	4
The multimedia (CD / DVD / video / audio) collections I need	6.00	8.00	7.40	1.40	-0.60	10
Helping me understand and publish in open access journals and books	6.29	7.14	7.00	0.71	-0.14	7
Library services that facilitate the communication of scholarly research outcomes	7.43	7.86	8.00	0.57	0.14	7
Ease of use of library-provided electronic books	7.50	8.25	7.75	0.25	-0.50	8
Provision of space and facilities that allow me to use my own laptop and/or other mobile device	9.00	9.00	9.00	0.00	0.00	1
Services that help me manage and share my research data	6.13	7.00	6.38	0.25	-0.63	8
Availability of subject specialist assistance	6.62	7.50	7.17	0.55	-0.33	42
Easily finding relevant full-text articles on the library's website	6.77	7.73	7.55	0.77	-0.18	22
The Ask-A-Librarian service provides information assistance when and where I need it.	6.56	8.16	7.96	1.40	-0.20	25
Access to information resources that support patient care and evidence-based practice	7.33	8.00	7.33	0.00	-0.67	3
Convenient access to library collections	6.17	7.22	7.48	1.30	0.26	23
Enabling me to find information myself 24 hours a day	6.93	7.95	7.64	0.70	-0.32	44
Interdisciplinary library needs being addressed	6.09	7.00	7.29	1.21	0.29	34
Providing direction to self-navigate the library	3.50	5.00	9.00	5.50	4.00	2
Resources added to library collections on request	6.60	7.57	7.03	0.43	-0.53	30
Space that facilitates quiet study	6.38	6.88	6.25	-0.13	-0.63	8
Space for students to study and work in groups	6.40	7.00	6.60	0.20	-0.40	5

Library staff providing help that assists in finding information needed now while improving my research skills	6.42	7.11	7.74	1.32	0.63	19
The library program teaches me how to access, evaluate, and use information	6.00	6.83	7.23	1.23	0.40	30
Helpful online guides and tutorials	6.35	7.58	6.81	0.45	-0.77	31
An online catalog that is user-friendly for finding materials	8.80	8.80	6.40	-2.40	-2.40	5
A service which can find for me rapidly and easily the documents not available in my own institution	7.00	8.20	8.40	1.40	0.20	10
Library materials available when and where I need them	7.29	8.14	7.57	0.29	-0.57	7
Signs in the library are helpful and the library layout makes sense	5.00	7.00	7.50	2.50	0.50	2
The value of the library's resources and services to me for my academic success	6.91	7.95	7.68	0.77	-0.27	22

This table displays the standard deviati ons of each of the local questions added by the individual library or consortium, 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.

Question Text	Minimum SD	Desired SD	Perceived SD	Adequacy SD	Superiority SD	n
Informing me of useful library services	2.17	1.61	1.55	2.56	2.06	13
Librarians teaching me how to access or manage information	2.08	1.53	1.00	2.52	2.52	3
Teaching me how to access, evaluate, and use information	2.26	1.86	1.58	2.05	1.96	25
Contribution to the intellectual atmosphere of the campus	1.74	1.48	1.47	1.62	1.66	53
Using the library for research	3.00	3.46	3.20	0.50	0.50	4
The multimedia (CD / DVD / video / audio) collections I need	2.58	1.25	0.70	2.63	1.43	10
Helping me understand and publish in open access journals and books	2.36	1.77	1.00	2.21	1.57	7
Library services that facilitate the communication of scholarly research outcomes	0.79	0.90	1.00	0.79	0.69	7
Ease of use of library-provided electronic books	1.60	1.04	1.16	1.75	1.69	8
Provision of space and facilities that allow me to use my own laptop and/or other mobile device						1
Services that help me manage and share my research data	2.23	2.56	1.85	2.38	2.50	8
Availability of subject specialist assistance	1.90	1.63	1.64	1.99	1.57	42
Easily finding relevant full-text articles on the library's website	2.02	1.86	1.37	1.45	1.22	22
The Ask-A-Librarian service provides information assistance when and where I need it.	2.06	1.14	1.10	1.91	1.32	25
Access to information resources that support patient care and evidence-based practice	1.53	1.00	1.15	1.00	0.58	3
Convenient access to library collections	1.92	1.91	1.34	1.96	1.63	23
Enabling me to find information myself 24 hours a day	1.72	1.64	1.50	1.90	1.62	44
Interdisciplinary library needs being addressed	2.23	1.79	1.61	2.04	1.68	34
Providing direction to self-navigate the library	3.54	5.66	0.00	3.54	5.66	2
Resources added to library collections on request	1.92	1.57	1.67	2.30	2.16	30
Space that facilitates quiet study	2.83	2.75	2.71	2.23	1.85	8
Space for students to study and work in groups	3.29	3.39	2.07	3.35	3.21	5
Library staff providing help that assists in finding information needed now while improving my research skills	2.12	2.47	1.88	2.26	2.34	19
The library program teaches me how to access, evaluate, and use information	2.45	2.04	1.63	2.36	1.92	30
Helpful online guides and tutorials	1.92	1.52	1.42	2.39	1.86	31
An online catalog that is user-friendly for finding materials	0.45	0.45	2.70	2.88	2.88	5

A service which can find for me rapidly and easily the documents not available in my own institution	2.36	1.62	0.52	2.46	1.81	10
Library materials available when and where I need them	0.76	0.90	0.79	1.11	1.51	7
Signs in the library are helpful and the library layout makes sense	0.00	0.00	0.71	0.71	0.71	2
The value of the library's resources and services to me for my academic success	1.48	0.95	1.04	1.51	1.08	22

8.5   General Satisfaction Questions Summary for Staff

This table displays the m ean score and standard deviati on for each of the general satisfaction questions: Satisfaction with Treatment, Satisfaction with Support, and Satisfaction with Overall Qua lity of Service, where *n* is the number of respondents for each question. These scor es are calculated from responses to th e general satisfaction questions on the LibQUAL+® survey, in which respondents rated their levels of general satisfaction on a scale from 1-9.

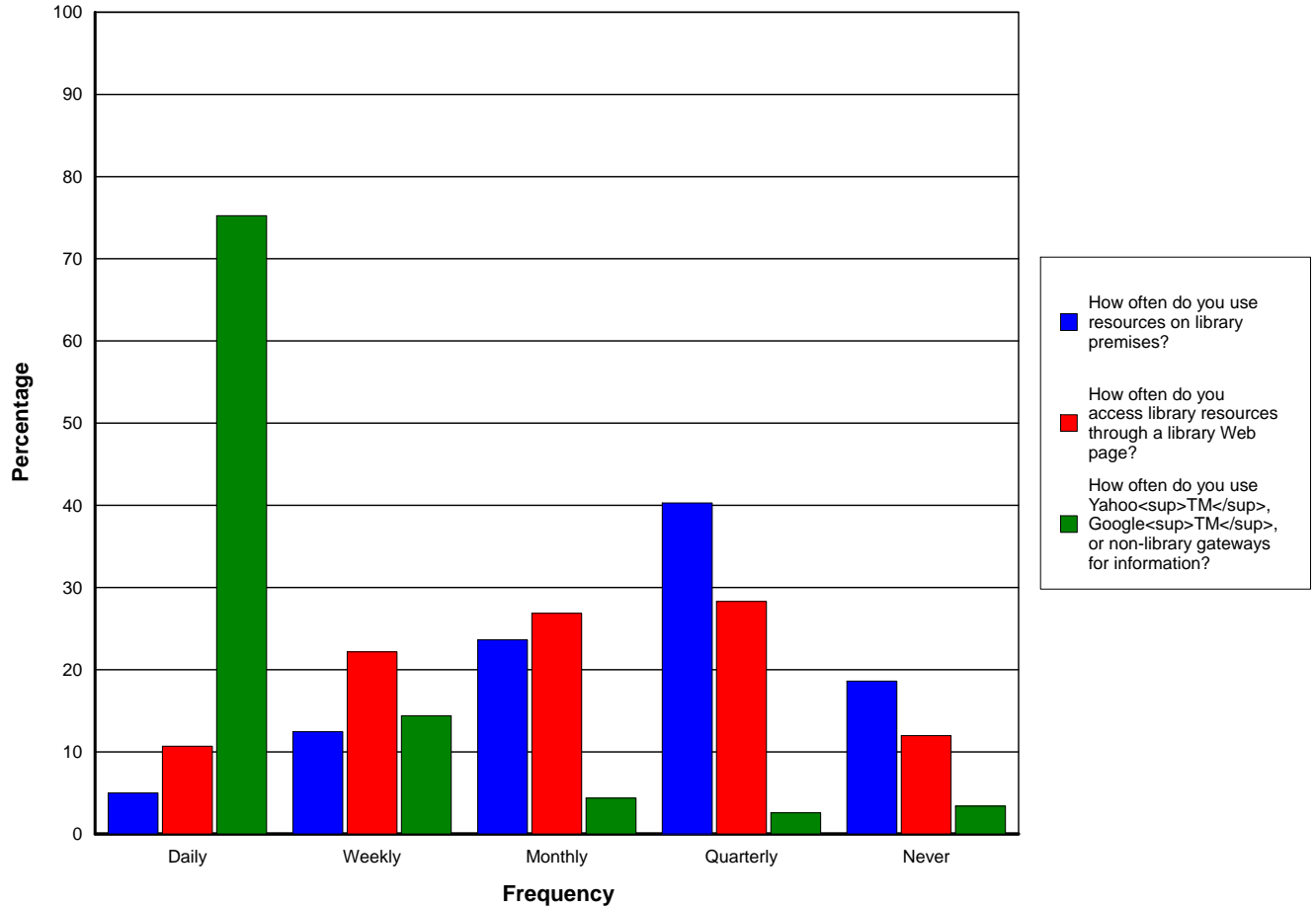| Satisfaction Question	Mean	SD	n
In general, I am satisfied with the way in which I am treated at the library.	7.76	1.39	303
In general, I am satisfied with library support for my learning, research, and/or teaching needs.	7.35	1.52	323
How would you rate the overall quality of the service provided by the library?	7.64	1.24	618

8.6   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 question. These scor es 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.	6.51	1.75	190
The library aids my advancement in my academic discipline or work.	7.16	1.67	268
The library enables me to be more efficient in my academic pursuits or work.	7.37	1.51	299
The library helps me distinguish between trustworthy and untrustworthy information.	6.61	1.80	292
The library provides me with the information skills I need in my work or study.	7.00	1.68	210

8.7   Library Use Summary for Staff

This chart shows a graphi c representation of l ibrary use (bot h on t he premises and el ectronically), as wel l as use o f 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 t able below the chart displays the number and percentage of respondents who selected each option.

	Daily	**Weekly**	**Monthly**	**Quarterly**	**Never**	**Total**
How often do you use resources on library premises?	31	77	146	249	115	618
	5.02%	12.46%	23.62%	40.29%	18.61%	100.00%
How often do you access library resources through a library Web page?	66	137	166	175	74	618
	10.68%	22.17%	26.86%	28.32%	11.97%	100.00%
How often do you use Yahoo^{TM}, Google^{TM}, or non-library gateways for information?	465	89	27	16	21	618
	75.24%	14.40%	4.37%	2.59%	3.40%	100.00%

Appendix A: LibQUAL+® Dimensions

LibQUAL+® measures dimensions of perceived library quality---that is, each survey question is part of a broade r 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 t he original SERVQUAL survey instrument (the framework for the LibQUAL+® survey tool; for more information on the origins of LibQUAL+®, go to <http://www.libqual.or g/Publications/>). The Lib QUAL+® survey dimensions have evolved with each iteration, becoming more refined and focused for application to the library context. 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 furt her refined to re-ground t he 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 "com prehensive print collections" and "convenient business hours")

LibQUAL+® 2002 and 2003 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 four dimensions were retained, their titles were changed slightly to more clearly represent the questions and data. The same four dimensions were also used on the 2003 survey:
- Access to Information
- Affect of Service
- Library as Place
- Personal Control

LibQUAL+® 2004 - Present Dimensions
After the 2003 survey was com pleted, factor and reliability analyses on the resulting data revealed that two of the dimensions measured by the survey-Access to Inform   ation and Personal Control-had collapsed into one. The

following three dimensions have been measured since then: Affect of Service, Information Control, and Library as Place. In addition, three core item s were eliminated from the 2003 version of the survey, leaving 22 core item s on the final survey instrument.

The list below displays the dimensions used to present the results in the 2010 notebooks, along with the questions that relate to each dim ension. *(Note: The questions below are those used in the College and University implementation of the survey, American English version.)*

Affect of Service

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

Information Control

[IC-1]   Making electronic resources accessible from my home or office
[IC-2]   A library Web site enabling me to locate information on my own
[IC-3]   The printed library materials I need for my work
[IC-4]   The electronic information resources I need
[IC-5]   Modern equipment that lets me easily access needed information
[IC-6]   Easy-to-use access tools that allow me to find things on my own
[IC-7]   Making information easily accessible for independent use
[IC-8]   Print and/or electronic journal collections I require for my work

Library as Place

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