What Do Users Think of Us? Mining three years of CUL LibQUAL+ data

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Description:
This study of CUL’s LibQUAL+ data was presented on May 21, 2008 at CUL’s Professional Development Week. The PowerPoint file is located in CUL’s eCommons: http://ecommons.library.cornell.edu/handle/1813/10842. This report records the narrative of the presentation to help CUL colleagues better understand the many graphs in the PowerPoint. There were two goals for the study. First, we wanted to determine what longitudinal data could be mined from past LibQUAL+ surveys’ core questions. Second, as CUL considers if and when it would like to administer the LibQUAL+ survey again, we wanted to get a sense from CUL staff of how useful that data is to their decision making processes.

The study aimed to identify trends, as well as areas where CUL has done well, and where it needs improvement. CUL administered LibQUAL+ four times: in 2001, 2002, 2003 and again in 2005. The 2001 survey data was not included in this analysis due to the pilot nature of that year.

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Introduction

This study of CUL’s LibQUAL+ data was presented on May 21, 2008 at CUL’s Professional Development Week. The PowerPoint file is located in CUL’s eCommons: http://ecommons.library.cornell.edu/handle/1813/10842 . We decided to record the narrative of the presentation to help CUL colleagues better understand the many graphs in the PowerPoint (most of which are included here as “figures”).

We conducted the study for two reasons. First, we wanted to determine what longitudinal data could be mined from the past LibQUAL+ surveys’ core questions. Second, as CUL considers if and when it would like to administer the LibQUAL+ survey again, we wanted to get a sense from CUL staff of how useful that data is to their decision making processes.

CUL administered LibQUAL+ four times: in 2001, 2002, 2003 and again in 2005. The 2001 survey data was not included in this analysis due to the pilot nature of that year. The average scores for faculty, graduates and undergraduates were pulled and analyzed for the questions that were asked across all three of the later surveys. We assigned each question to one of four areas (deviated somewhat from LibQUAL+’s categories and avoiding jargon): the Human Touch, Library as a Place, User Empowerment, and Access to Materials. Questions were considered individually, and as part of these 4 areas. The analysis aimed to identify trends, as well as areas where CUL has done well, and where it needs improvement.

Over the later 3 years, there were 1,742 participants: 287 faculty, 707 graduates and 748 undergraduates. The response rate trended downwards from 20% in 2002, to 15% in 2005. It should be noted that the decrease in 2005 was due in part to problems with the sampling.

Methodology

This study focused on the core questions of the 2002, 2003 and 2005 LibQUAL+ surveys. We printed the surveys for each year (including the local questions for 2005), and compared them to see which questions were asked in each of the three surveys. There were a total of 18 questions that were exactly the same or reasonably close. However, since those 18 questions included only one about collections, we added two additional questions that were asked in both 2003 and 2005. The following questions (or services), arranged by the four areas mentioned above, were analyzed in this study:

Human Touch services (Questions 1-9)

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

Library as a Place services (Questions 10-11)
10. Quiet space for individual activities (in 2002: Space that facilitates quite study)
11. A comfortable and inviting location

User Empowerment services (Questions 12-16)
12. Making electronic resources accessible from my home of office
13. A library Web site enabling me to locate information on my own
14. Modern equipment that lets me easily access needed information
15. Easy-to-use access tools that allow me to find things on my own
16. Making information easily accessible for independent use

Access to Materials/Resources services (Questions 17-20)
17. Timely document delivery / interlibrary loan
18. The printed library materials I need for my work (in 2002: Comprehensive print collection)
19. Print and/or electronic journal collections I require for my work (only asked in 2003 and 2005)
20. The electronic information resources I need (only asked in 2003 and 2005)

For each service, we pulled the average perceived, desired and minimum ratings for faculty, graduates and undergraduates and analyzed the data in MSExcel. For the analysis, we looked at data at two different levels: question specific data, and question data by the four areas. We also looked at some of the overall, summary data to ground our observations. The aim was to identify trends, as well as areas where CUL has done well, and where it needs improvement. The data for the core questions were graphed in several different ways, including what we call “popsicle” charts (described below).

To help the presentation attendees understand the data, we provided some background information on how the LibQUAL+ works (Figure 1). We started by noting that LibQUAL+ borrows some key assumptions from the business world:

- Users will choose the services they find most efficient and that fit their individual needs. For example, do users find it more efficient to use Chat or the reference desk? FindIt, or Google Scholar?
- CUL cannot change user expectations for services, but we can change what services we offer.
- How successful we are with those changes will be reflected in user responses and in how often our services are used.
We also provided a description of how the ratings for LibQUAL+’s signature core questions work: for each question, users are asked to provide three ratings, on the scale of 1 to 9, 1 being the lowest and 9 being the highest:

- Minimum service level (the lowest service level the user can accept)
- Desired service level (the level the user wants)
- Perceived service level (where the user perceived the library service is now)

Figure 1: LibQUAL+ core question measures

Figure 2 describes how the “popsicle” graphs we used to chart this data to identify and illustrate findings in this study work. The green line shows the level of service the average user desires, the bottom tip of the stick indicates the minimum level the user can accept, and the black dot indicates where the user thinks CUL’s services are. From the bottom point of the stick to the green line at the top of the box is the users’ range of tolerance. The blue box outlines that part of the range that is above the user’s average expectation for a particular category.
Figures 3 and 4 demonstrate the value of LibQUAL+’s signature measures – how the minimum and desired service levels provide the context for the perceived service level. In Figure 3, when focusing solely on the CUL’s perceived levels, it appears that CUL is doing quite well. CUL’s scores are well above the average of the measuring scale, and the 2005 score is slightly higher than the 2003 score.

But when we put the scores in the context of user expectations (Figure 4), a different picture emerges. In both years, users perceived the service close to their minimum acceptable level acceptable. In 2005, the users’ expectations went up and their range of tolerance narrowed. As a result, the perceived service level is closer to their unacceptable level in 2005 than in 2003. CUL actually lost ground for this particular service.
Limitations

In this project, RAU did not have the time to look at the rich data from the following sections of the survey that would provide more depth to the findings. If Library staff find this study useful for decision making, we can build upon it in the future.

- Demographics (beyond user group)
- Satisfaction questions
- Outcome questions
- Frequency of the use of the library and its resources
- Comments

It also did not undertake any statistical analysis of the data beyond the descriptive statistics shown here.

Please note that user perceptions reported on in the Human Touch area can be of staff from any unit, and from the most seasoned full-time staff to the least experienced student staff.

Findings

Overview data

We use a “peeling” approach to present the findings. We first look at overview data. We then look at each of the four areas (the Human Touch, Library as a Place, User Empowerment and Access to Materials), and sample questions from each of the four areas.

Figure 5 shows that, overall, users rate CUL’s service well above the survey scale’s midpoint, and that we are doing better in 2005 than in 2003. It should also be noted that the CUL LibQUAL+ committees found that CUL faiired well against our participating peers.
Figure 5: Overall, CUL is doing very well

As shown in Figure 6, it’s also true that CUL has very demanding customers, i.e., users expect a lot from us. Figure 6 plots the 2005 faculty and undergraduate average service level scores for each of the services we examined. The red lines show the mid-point of the LibQUAL+ scale. Most of CUL users’ minimum acceptable service levels are in the 6-8 range. Only two touch the midpoint of the scale.

Figure 6: Overall, users expect a lot from CUL
Four areas and individual question data – overview data

We then grouped individual questions into the four areas to see where the user groups agreed and disagreed on what the most important services were. The Venn diagram in Figure 7 charts questions that received desired service levels above 8 at least two times from 2002 to 2005.

Figure 7: Services most important to users groups

The middle of the diagram shows where all groups agreed. Almost all of these services are from the User Empowerment area. The only one that is not is Q20, which is about having access to electronic resources. Beyond that, faculty and graduates shared 5 services from the Access and Human Touch areas; note that with question 20 in the fully shared group, all collection-specific services within the Access area are indicated as very important by both graduates and faculty. Note also that at this level, no services were shared just between faculty and undergraduates, or, more surprisingly, just between graduates and undergraduates.

There are several other important things to see here. Undergraduates included both of the Library as a Place services on their list. Also, only 5 of the 9 Human Touch services are represented here, and it appears that most services included were more about getting the job done than about what the users might see as icing on the cake (such as employees who deal with users in a caring fashion, instill confidence in users, or give users individual attention). Note overall, that faculty and graduates assigned these higher desired service levels to more services; undergraduates seemed to be less demanding comparatively.
We also wanted to know how well users think CUL fared in meeting their expectations. We decided that, if CUL met less than half of their expectations, we should be concerned, and that if we met less than a quarter, we should be alarmed. We created Figures 8 and 9 to try to tease this out.

In Figure 8, we examined those services for which groups’ perceived service levels fell in the lower half of their ranges of tolerance (“below average”) as the outtake shows.

<table>
<thead>
<tr>
<th></th>
<th>ALL user types</th>
<th>Faculty only</th>
<th>Faculty &amp; Grads only</th>
<th>Grads only</th>
<th>Grads &amp; Undergrads only</th>
<th>Undergrads only</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>12, 13, 15, 19</td>
<td>18</td>
<td>4, 11, 14, 16</td>
<td>10, 20</td>
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<tr>
<td>2003</td>
<td>12, 15, 19, 20</td>
<td>13, 18</td>
<td></td>
<td>10</td>
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<tr>
<td>2002</td>
<td>12</td>
<td>18</td>
<td>4, 13, 15, 16</td>
<td>10, 14</td>
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</table>

In this table, the first column indicates the services all user groups perceived “below average” in their ranges of tolerance. Since this table lists all three years, it allows us to see which concerns were newer and which were re-occurred each year. Below we list some examples of how to read the data:

- The number of services that were perceived “below average” in users’ ranges of tolerance increased in the later years. Once again, these services were all from the User Empowerment and Access areas.
- 12, 13 and 15 (remote access, the website and easy-to-use access tools) re-occurred in each survey year.
- 18 (access to print materials) was first a concern for faculty in 2002. It became a shared concern for faculty and graduates in 2003, and remained a concern for them in 2005.
- 10 (quiet space) was first a concern for graduates in 2002. It became a shared concern for graduates and undergraduates in 2003, and remained a concern for them in 2005.
- 11 (a comfortable and inviting location) was a new concern at the “below average” level for graduates in 2005.
Only 1 Human Touch area service (4 or employee knowledge) was on the list. It was included only in 2002 and 2005.

We then singled out perceived service levels that fell in the bottom quartile of the groups’ ranges of tolerance (or close to the unacceptable point) in Figure 9. We believe CUL should be alarmed by these. Happily these counts are much lower.

A couple of observations:

- There was no shared weak service at this level that concerned all three user groups in 2005.
- In the first two survey years, the concerns were more spread out among user groups. In 2005, the concerns were concentrated in the graduate group.
- 12 (“Making electronic resources accessible from my home or office”) was a shared concern for all user groups in 2003, but only graduate students perceived it in the bottom quartile level in 2005.
- Only graduates had concerns at this level in 2005. In fact, they added three new services to their list.
  - 13, “A library website enabling me to locate information on my own”
  - 15, “Easy-to-use access tools that allow me to find things on my own”
  - 20, “The electronic information resources I need”

Before we tallied the data, we thought that quiet space would be a concern at this level for all groups, for all years, given the dissatisfaction indicated in other library surveys. Interestingly, it was not included at all at this level in 2005. Note also that no Human Touch services were included in this bottom-quartile group.
Looking at Figures 8 and 9, it’s pretty clear that graduates are our least satisfied customers

*Four areas and individual question data – more detail*

Figures 7, 8 and 9 give us a good understanding of the lay of the land. But what can more focused views tell us?

**The Human Touch Area**

**Figure 10: The Human Touch Area (9 services)**

- Over all years, only 3 perceived service levels did not fall above user groups’ average expectations
- Faculty and graduates’ desired service levels were higher than undergraduates’
- Overall, more of faculty’s expectations were met

(A quick aside – note that Figure 10’s graphs are for 2005 data only, as will be the case for the other areas’ introductory figures, but that we’ll be looking at the data for the areas as a whole.)

As we saw in the summary graphs, most perceived service levels in the Human Touch area were above user groups’ average expectations (or in the blue boxes); over the three years, only 3 perceived service levels were not above user groups’ average expectations, and 37 (17 for faculty, 9 for graduates and 11 for undergraduates) were above 75% (top quartile of the users’ ranges of tolerance). While this is good news, there were some disconcerting differences between user groups’ scores.

Overall, faculty and graduates had higher desired services levels than undergraduates, and in general, more of faculty’s expectations were met. Faculty also seemed more sure of what they wanted -- their ranges of tolerance (or the distance between the bottom of the stick and the top of the blue box) were narrower. This invites the question: do we unconsciously treat faculty better, or is it just how the students perceive the interactions? Either way, it's something CUL should be aware of.
We also created a file of all of the ratings that can be sorted as needed to create groupings like those in Figure 11. In this set, we encountered some other data that surprised us.

The library profession prides itself on being authoritative and dependable, and puts great stock in information literacy. However, for all groups, “Employees who have the knowledge to answer user questions” was always one of the services in this area that met comparatively less of their expectations. In addition, the desired service levels for “Employees who instill confidence in users” were one of the three lowest in this area for all groups, and within all areas for students. And why would “Giving users individual attention” also be one of groups’ least desired services in this area? Does it have to do with users wanting to be able to do it all for themselves?

Figure 12, plots all of the data for the employee knowledge question. Seen in detail, there’s both good and bad news for CUL. On the good side, the service met more of each groups’ expectations in 2005 than in 2002. However, while faculty’s desired service level rose from 2002 to 2005, students’ levels fell; in other words, they expected less of us for this service. This is particularly concerning for undergraduates, as dropping desired service levels seem to be a reoccurring pattern.
While “Giving users individual attention” wasn’t a concern for our users, the data in Figure 3 do illustrate particularly well how faculty and student perceptions can differ. Here, while faculty’s perceived service levels increased in 2005, undergraduates’ fell, separating their scores by 1.4 survey scale units.

The Library as a Place Area

The second area (Figure 14) includes 2 of the services we covered: “Quiet space for individual activities” and “A comfortable and inviting location”. As we saw in the summary graphs, there were obvious differences between the faculty and student groups’ average scores. Of the 20 services considered, faculty’s desired service levels for these 2 services were the lowest each year. On the other hand, those for graduates and undergraduates, who have very little access to departmental space, were quite a bit
higher. This is especially true for undergraduates, who in 2005, assigned quiet space their second highest desired service level, second only to “Making electronic resources accessible from my home or office”. Performance-wise, for both services, in all but 1 case, faculty’s perceived services levels were above average or even over the top of their expectations range (or in or above the blue boxes). Graduates’ perceived service levels only made it above average for the comfort measure in 2003. For the latest 2 years, undergraduates’ perceived services levels for quiet space were below their average, and for the comfort service, somewhat above their average, but decreasing in 2005.

**Figure 15: Quiet space for individual activities**

- All user groups’ perceived service levels rose each year
- Undergraduates’ desired service level rose from 2002 to 2005 (true for only 3 of the 20 services covered)
- Undergraduates’ range of tolerance narrowed each year
- Less of undergraduates’ expectations were met each year; more of faculty and graduates’ expectations were met in 2005

Interestingly, (and good news for the Library), the full data for “Quiet space for individual activities” shows that all groups’ perceived service levels went up each year. This increase was particularly significant for undergraduates as their desired service levels only rose from 2002 to 2005 for 3 of the 20 services we covered. Their range of tolerance also narrowed each year. However, note that while both faculty and graduates’ expectations were more fully met in 2005, those for undergraduates were not.
In the third area (Figure 16), user expectations are definitely heightened by the web. Looking at the data for these five services, it’s clear why CUL is putting a great deal of effort into improving its web presence, and testing new systems for usability. For all of the groups over the three survey years, desired service levels were high (only 2 of 45 were not above 8). And, overall, less of the groups’ expectations were met in this area than in the other areas. Ranges of tolerance also generally narrowed from 2003.

Overall graduates have the highest desired service levels, and less of their expectations were met. In this area, undergraduates’ desired service levels were still lower than those of the other groups, but they were more similar than in the previous areas.

As indicated in the summary graphs, for “Making electronic resources accessible from my office or home” (Figure 17), perceived service levels clearly fell below the groups’
average expectations. In 2003, the graduate and undergraduate perceived that the services actually fell below their minimum acceptable levels. However, all perceived service levels increased following a system improvement between 2003 and 2005. In 2003 and 2005, this service had the undergraduates’ overall highest desired service level among the 20 services we covered – the second of the 3 services for which their desired service levels were up in 2005 from 2002. Interestingly, many of the faculty’s desired service levels in this area went up in 2003 and down in 2005. We wondered if that might have had anything to do with the sampling error in 2005.

**Figure 18: A library website enabling me to locate information on my own**

- High desired service levels for all groups (all above 8)
- More of undergraduates’ expectations were met than those of faculty and graduates
- Faculty and undergraduates’ desired service levels dropped in 2005

There were high desired service levels for “A library website enabling me to locate information on my own” (Figure 18). Interestingly, each year, more of the undergraduates’ expectations were met than those of faculty and graduates. Surprisingly, faculty and undergraduates’ desired service levels dropped from 2003 to 2005.
Access Area

As we saw in the summary graphs, the last area (Figure 19) is clearly another area with high desired service levels for all groups, especially faculty and graduates. The first question is about document delivery and ILL, and the three others about collections. Desired service levels were fairly high for document delivery/ILL, especially for graduates. But as you might expect, users generally had lower desired service levels, and more of groups’ expectations were met for that service than for the collection-specific services.

For the collection-specific services, as is true nationally, many of the groups’ perceived service levels fell below their average expectations. For CUL that was true 15 out of the 21 cases – with one graduate score actually below their minimum service level. For faculty and graduates, all desired services levels increased for all measures but e-resources for faculty. On the other hand, undergraduates’ desired service level only increased for print and/or e-journal collections in 2005 -- the third of the three services for which desired service levels increased for undergraduates from 2002 to 2005 (the first two included: “Making electronic resources accessible from my office or home,” and “Quiet space for individual activities”). In 2003, the graduates’ desired service level for e-resources was fifth of the 20 services, but was first in 2005. And in 2005, graduates’ perceived service levels for “Print and/or electronic journal collections I require for my work” was the lowest in their ranges of tolerance for all 20 services.

Overall, less of all groups’ expectations were met in the User Empowerment area. However, in 2005, the Access area had that dubious distinction for graduates, and the Library as a Place area had it for undergraduates.
For “The printed library materials I need for my work” (Figure 20), we again see high desired service levels, particularly for faculty and graduates in 2003 and 2005. Each year faculty and graduates’ desired service levels rose, while undergraduates’ decreased from 2002 to 2005. Unfortunately, all groups’ perceived service levels were higher in their ranges of tolerance in 2002 than in 2005. Interestingly, in 2002, faculty desired service levels for print materials were lower than those for the students, but in 2003 and 2005, faculty’s desired service levels became higher for print than for e-resources. This made us suspect something in particular drew their attention to print. (Monograph budgets being threatened by serial cost? Annex moves?)

Desired service levels for “The electronic information resources I need” (Figure 21) were obviously high for all groups, but rose for graduates in 2005, while they fell for faculty and undergraduates. Since Faculty and undergraduates’ perceived service levels stayed pretty steady, more of their expectations were met in 2005 than in 2003. The opposite was true for graduates. Interestingly, undergraduates’ desired service levels for being
able to access e-resources at home were higher than those for e-resources in both 2003 and 2005. (This was also true for faculty in 2003).

Conclusions

<table>
<thead>
<tr>
<th>Figure 22: Recent Library actions?</th>
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<tr>
<td><strong>The Human Touch</strong></td>
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<tr>
<td><strong>Access</strong></td>
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<tr>
<td>• GetIt!</td>
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<tr>
<td>• Buy instead of borrow</td>
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<tr>
<td>• Favoring e-resources</td>
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<tr>
<td>• Scholarly Communications</td>
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<tr>
<td>• Large Scale Digitization</td>
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We conducted this study hoping to identify weak service areas so we could draw attention, and bring improvements to those areas for our users. It is very important to stress that CUL has done a great deal of remarkable work for its users. It is very easy for us to name recent initiatives in 2007-2008 (Figure 22) in each of the categories we examined. Initiatives like these impacted how users perceive CUL’s service levels. They voted with their LibQUAL+ responses and ranked us overall very highly among our participating peers. We should be very proud of our services.

<table>
<thead>
<tr>
<th>Figure 23: Questions to Ponder</th>
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<tbody>
<tr>
<td>• SWOT Analysis (Strengths, Weaknesses, Opportunities, and Threats)</td>
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<tr>
<td>o Where are we consistently doing well?</td>
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<tr>
<td>o Where are we consistently weak?</td>
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<tr>
<td>o Are these weak areas the Library’s opportunities to invest in, or,</td>
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<tr>
<td>o Are these areas we should give up or give over to competitors?</td>
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<tr>
<td>• Would you use LibQUAL+ data to make decisions?</td>
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<tr>
<td>• Should we do LibQUAL+ again? If so, how often?</td>
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Going from here, we could do a lot more. For instance, could we do more in the Human Touch area? How can we make sure that users’ perception about the Library staff’s knowledge becomes more positive? This change may be accomplished through our
staff’s interactions with our users. It could mean different things for staff at different service points, such as circulation and reference.

Is it possible for us to use LibQUAL+ data to conduct a SWOT analysis (Figure 23)? Could we use what we learn from the data about our existing strengths and weaknesses to determine where we should focus our efforts? In what way could the LibQUAL+ data help CUL make such decisions? Would the value of the data justify our continued participation in LibQUAL+, knowing that there is campus-wide survey fatigue? Should CUL decide to participate in LibQUAL+ in the future, at what interval is it meaningful? Every three years? Every five? What should we do in between?

With these questions, we turned to the audience for questions and discussion.