

LibQUAL+ 2003 and 2006 Narrative Analysis

Prepared by Sue Samson and Kate Zoellner



This document is meant to supplement the 2003 and 2006 LibQUAL Reports provided by LibQUAL to the University of Montana’s Mansfield Library.

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Methodology: Instrument & Sampling

Instrument

Mansfield Library first participated in the LibQUAL survey in fall 2003. At that time, the survey was comprised of 25 core quantitative items that measured user perceptions of service quality in *four* sub-dimensions: Access to Information, Affect of Service, Library as Place, and Personal Control. As of the 2004 iteration of the survey, there are 22 core items – with the option to add 5 additional local questions – that measure perceptions in *three* dimensions: Access to Information and Personal Control have been collapsed into Information Control.

The three questions from the fall 2003 iteration no longer part of the core survey were added in 2006 along with two other questions:

- AI-2: Convenient service hours
- AI-5: Timely document delivery/interlibrary loan
- PC-2: Convenient access to library collections

The two other questions added were:

- Providing help when and where I need it – optional question 12
- Providing reliable access to resources when and where I need them – optional question 42

The survey instrument has continuously been organized in the following way:

1. Core Questions
2. General Satisfaction and Outcomes Questions
3. Library Use Questions
4. Demographics Questions
5. Comments

Sampling

- In 2003, survey participants were recruited using volunteer sampling procedures, from which email lists were created. All faculty were contacted via email. Sending a postcard to a random sample drawn from an alphabetical list created student email lists. Students were offered a random drawing for ten fifty-dollar gift certificates to link to an online location and provide email information. In addition, anyone who saw the link on the library's website was also able to participate in the email gathering stage. These emails were pooled with the faculty email list to create the survey participants.
- In 2006, a stratified random sample of faculty, staff, undergraduate and graduate students was drawn from the UM community population. Students were offered a random drawing for four fifty-dollar gift certificates if they chose to provide their email contact information.

Participation/Response Data

The 2003 survey yielded 938 respondents, an overall response rate of 45.6%.

- User Groups. 40.9% (n=384) undergraduate, 30.6% (n=287) graduate, 25.3% (n=237) faculty, 2.7% (n=25) staff, 0.5% (n=5) library staff
- Gender. 42% (n=392) male, 58% (n=539) female
- Comments. 49% (n=459) commented, providing 727 unique comments

The 2006 survey yielded 506 respondents, an overall response rate of 12%.

- User Groups. 22.9% (n=116) undergraduate, 31.8% (n=161) graduate, 28.5% (n=144) faculty, 15.4% (n=78) staff, 1.4% (n=7) library staff
- Gender. 40% (n=200) male, 60% (n=298) female
- Comments. 45% (n=228) commented, providing 321 unique comments

Integrity of UM's LibQUAL Data

Validity: Do UM scores measure the right something

“Validity asks whether scores measuring something measure the correct something, and only the correct something.” (Thompson, Kyriallidou, Cook, 2006, p. 12) Factor analysis was used to determine the validity of the UM data. As evident in table 1, three factors emerged mostly inclusive of the items from each of the three core question domains, thus the relationships among the responses indicate the presence of the expected number of factors and measure the intended factors and only the intended factors.

Table 1. 22 Core LibQUAL Items Rotated to the Varimax Criterion for the UM 2003 and 2006 Survey Iterations

Core Item by 2006 Domain	Factor by Year					
	2003			2006		
	I	II	III	I	II	III
Affect of Service						
AS01 Employees instill confidence in users	<u>0.71802</u>	0.26905	0.17892	<u>0.71068</u>	0.22560	0.26196
AS04 Giving users individual attention	<u>0.69487</u>	0.27926	0.22986	<u>0.67062</u>	0.22184	0.21249
AS06 Employees are consistently courteous	<u>0.78545</u>	0.23478	0.16228	<u>0.81207</u>	0.07908	0.21770
AS09 Readiness to respond to users' questions	<u>0.78708</u>	0.26643	0.11618	<u>0.75409</u>	0.36822	0.17747
AS11 Employees have knowledge to answer user questions	<u>0.76242</u>	0.31717	0.22450	<u>0.63092</u>	<u>0.45875</u>	0.25288
AS13 Employees deal with users in a caring fashion	<u>0.80491</u>	0.19638	0.23496	<u>0.79612</u>	0.32095	0.19970
AS15 Employees understand the needs of their users	<u>0.70535</u>	<u>0.41080</u>	0.19514	<u>0.74875</u>	<u>0.41401</u>	0.17183
AS18 Willingness to help users	<u>0.78062</u>	0.22391	0.22419	<u>0.76132</u>	<u>0.40085</u>	0.19793
AS22 Dependability handling users' service problems	<u>0.71587</u>	0.32727	0.27993	<u>0.61788</u>	<u>0.45895</u>	0.15029
Library As Place						
LP03 Lib space that inspires study and learning	0.22401	0.19117	<u>0.83017</u>	0.15687	0.22473	<u>0.79399</u>
LP08 Quiet space for individual activities	0.18744	0.13122	<u>0.71637</u>	0.16278	0.09592	<u>0.84148</u>
LP12 A comfortable and inviting location	0.19595	0.12671	<u>0.75998</u>	0.33627	0.36339	<u>0.59987</u>
LP17 A getaway for study, learning, or research	0.24039	0.30575	<u>0.73486</u>	0.29024	<u>0.46544</u>	<u>0.60508</u>
LP21 Comm space for group learning and group study	0.15630	0.29402	<u>0.67445</u>	0.26812	0.25861	<u>0.67997</u>
Information Control						
IC02 Making elec resources access home or office	0.24133	<u>0.63498</u>	0.19333	0.18297	<u>0.63104</u>	0.24748
IC05 Lib Web site enabling locate info on my own	0.22959	<u>0.73707</u>	0.11972	0.36381	<u>0.60834</u>	0.16686
IC07 The printed lib materials I need for work	0.29677	<u>0.49873</u>	<u>0.42427</u>	0.24266	<u>0.57097</u>	<u>0.40780</u>
IC10 The elec info resources I need	0.25294	<u>0.73317</u>	0.27634	0.27453	<u>0.74782</u>	0.16377
IC14 Mod equip lets me easily access needed info	0.32249	<u>0.68210</u>	0.28771	0.31912	<u>0.68258</u>	0.23577
IC16 Easy access tools allow find things on my own	0.30353	0.66610	0.08236	0.37112	<u>0.69545</u>	0.21275
IC19 Making info easily access for independent use	<u>0.40412</u>	<u>0.65758</u>	0.27317	0.39391	<u>0.68095</u>	0.30764
IC20 Pr and/or elec journal coll require for work	0.21003	<u>0.68020</u>	0.19438	0.19772	<u>0.78244</u>	0.14764

Coefficients greater than 0.40 are underlined.

Reliability: Do UM scores measure anything?

Reliability in both 2003 and 2006 was acceptable as measured by Cronbach's alpha for the three LibQUAL domain/scales and for the total instrument, as evident in the table below (alpha coefficient of at least .70). This measure indicates that the response scores received on both iterations of the survey were reasonably nonrandom and stable.

Table 2. Reliability Analysis for the 22 Core LibQUAL Items from the UM 2003 and 2006 Survey Iterations

Survey Year	n	Scale			
		Affect of Service	Library As Place	Information Control	LibQUAL+
2003	942	0.942	0.861	0.890	0.947
2006	506	0.940	0.846	0.898	0.953

The scores from both UM's 2003 and 2006 LibQUAL implementations have acceptable data reliability and validity. Thus, that data provide ample integrity for further analysis to determine respondents' characterization of service quality at UM libraries.

Respondents were not the same for the 2003 and 2006 survey iterations, yet the sample size does meet the assumption of normality, meaning it is assumed that errors have a normal distribution,

enabling generalizations across distinct user groups (i.e., undergraduate students, graduate students, faculty, staff).

To enable accurate comparisons between the 2003 and 2006 data, all analyses were done using the 2006 domains and core items.

Frequency of Use

Survey respondents were asked about the frequency with which they use the physical library, library webpage, and search engines/non-library gateways. Aggregate data for 2003 show that weekly visits of the physical library were most common, at 47.7%, followed by monthly, daily, quarterly use, and 1.5% of respondents reported never using the library premises. During this same time, weekly visits to access library resources through the library web page were the most common, at 50%, followed by daily, monthly, quarterly use, and 3.75% of respondents indicated they never utilize these resources.

In 2006, as the percentage of respondents that use the physical library on a monthly and quarterly basis grew, those who never use the physical library grew slightly, too, by 2.7% to 4.2%, and the number of weekly visits fell by 11.8% to 35.9%. During this same time, daily use of library resources accessible via the web page grew by 4.8%, to 27.5%. Daily physical use of the library fell between 2003 and 2006 at the same time that daily web use increased.

Peers

Comparing UM data with the aggregate mean of all participating ARL College or University libraries for physical use of the library building shows that both UM and ARL libraries experienced decreases in weekly use of the library, and increases in quarterly and no use of the building between 2003 and 2006 (ARL 2003 Notebook, p. 94; ARL 2006 Notebook, p. 165). In contrast, UM experienced a decline in daily use of the building (- 6.16%) while ARL libraries saw a slight increase (+1.41%). And, UM respondents indicated increased monthly use of the building (+7.04%), while ARL results show a slight decline in use between the 2003 and 2006 survey iterations (-1.19). See table 3.

Looking at the frequency of access to library resources through a library Web page, between 2003 and 2006 respondents at both UM and ARL libraries increased their daily use of the web page, and decreased their weekly and monthly use of the site. During this same time, UM libraries had increased responses from users with quarterly and no use of the web page, while ARL decreased in these two frequency categories. See table 4.

For both 2003 and 2006 the highest percentage of use for Yahoo, Google, or non-library gateways for information was daily use, followed by weekly, monthly, quarterly, and no use. Between 2003 and 2006 the percent of respondents that used these resources on a daily basis grew 7.7%, to 67.7%, while less-frequent uses declined. (The one exception being respondents who never use non-library gateways, which grew by less than 0.5%.) See table 5.

Peers

ARL libraries show the same trend. The higher the frequency of use of the non-library gateway, the higher the percentage of respondents. Comparing UM data with the aggregate mean of all participating ARL College or University libraries for use of Yahoo/Google/non-library gateways shows that both UM and ARL libraries experienced increases in daily use of non-library gateways and decreases in weekly, monthly, and quarterly use of this type of information resource between 2003 and 2006 (ARL 2003 Notebook, p. 94; ARL 2006 Notebook, p. 165). At this same time, UM experienced a marginal increase (less than 0.5%) in the number of respondents indicating they never used these resources, while ARL data shows a slight decrease (-1.32%). See table 5.

Correlations

Do mean ratings of affect of service, library as place, and information control, as measured by LibQUAL+ perceived means, differ with frequency of library use? To examine the relationship between the frequency of library use and the domains LibQUAL measures – affect of service, library as place, and information control – simple bivariate correlations were conducted in SPSS. In looking at the extent to which library premise use corresponded to the perceived satisfaction with library as place, a Pearson-Product Moment Correlation was calculated. The results from 2003 showed a very small, but positive relationship between the frequency of physical library use and perceptions of the library as place ($r = .068$, $p < 0.05$, two-tailed). Additionally, the coefficient of determination was low ($r^2 = .005$), indicating that only half a percent of the change in perception of library as place is determined by the reported library use frequency. In 2006, there was no significance in the relation between the two variables ($r = .022$).

Do mean ratings of overall service quality, as measured by LibQUAL+ perceived means, differ with frequency of library use? In looking at the extent to which library premise use corresponded to the satisfaction with overall library service quality, a Pearson-Product Moment Correlation was calculated. The results from 2003 showed no correlation between the frequency of physical library use and perceptions of service quality ($r = .063$). Again, in 2006 there was no significance of correlation ($r = -.063$).

Do mean ratings of information control, as measured by LibQUAL+ perceived means, differ with frequency of library web site use? Another correlation considered was that of library web site use and satisfaction with information control. The results from a Pearson-Product Moment Correlation showed a non-significant negative correlation between the two variables for both 2003 ($r = -.011$) and 2006 ($r = -.026$).

Do mean ratings of information control, as measured by LibQUAL+ perceived means, differ with frequency of non-library gateway use? The frequency of Yahoo, Google, and other non-library information gateway use and satisfaction with information control was also examined. The results from 2003 showed a small, but positive relationship between the frequency of non-library information gateway use and satisfaction with information control ($r = .100$, $p < .01$, two-tailed). The coefficient of determination is very low, ($r^2 = .01$), indicating that only one percent of the change in satisfaction with information control is determined by the reported use of free web information gateways. 2006 results showed a non-significant negative correlation between the two variables ($r = -.009$).

Do mean ratings of perceived library service quality, as measured by LibQUAL+ perceived means, differ with frequency of library use? To answer this question, both descriptive statistics and an independent Analysis of variance (ANOVA) were calculated via SPSS, testing if the means of the two variables were different enough not to have occurred by chance. ANOVA results indicate that there was no statistically significant difference ($p > .05$). See table 6.

Table 6. ANOVAs of Perceived Mean 22 Core LibQUAL Items by Frequency of Library Use for the 2003 and 2006 UM Survey Iterations

Frequency	2003				2006			
	n	Mean	SD	95% CI for Mean	n	Mean	SD	95% CI for Mean
<i>Physical Library Use</i>								
daily	168	6.7079	1.4594	6.4856 to 6.9302	62	7.2339	1.0702	6.9622 to 7.5057
weekly	448	6.8510	1.0295	6.7554 to 6.9466	180	7.0221	1.1235	6.8569 to 7.1874
monthly	199	6.9097	1.0050	6.7692 to 7.0502	141	7.0767	0.9521	6.9182 to 7.2352
quarterly	113	6.9271	1.1509	6.7126 to 7.1417	102	6.9425	1.1480	6.7170 to 7.1680
never	14	7.2261	1.1581	6.5574 to 7.8947	21	7.0467	1.1706	6.5138 to 7.5795
Total	942	6.8526	1.1302	6.7803 to 6.9249	506	7.0483	1.0779	6.9541 to 7.1424
	$p = .260$				$p = .555$			
<i>Electronic Library Use</i>								
daily	216	6.7139	1.3222	6.5365 to 6.8912	140	6.9991	1.1363	6.8092 to 7.1890
weekly	468	6.9180	1.0288	6.8245 to 7.0114	221	7.0446	1.0335	6.9075 to 7.1816
monthly	162	6.8227	1.0673	6.6571 to 6.9883	84	7.1112	1.1262	6.8668 to 7.3556
quarterly	61	6.9023	1.1814	6.5998 to 7.2049	39	7.2257	0.8868	6.9383 to 7.5132
never	35	6.8859	1.3086	6.4364 to 7.3354	22	6.8433	1.2785	6.2765 to 7.4102
Total	942	6.8526	1.1302	6.7803 to 6.9249	506	7.0483	1.0779	6.9541 to 7.1424
	$p = .279$				$p = .658$			

General Satisfaction

Survey respondents were asked three questions to indicate their general satisfaction with the library, on a scale of 1 to 9. The mean scores on these three items for all respondents in 2003 fall in the range of 6.45-7.26, and in 2006 in the range of 6.51-7.6. The mean scores for all user types on all three items were higher in 2006 than in 2003—indicating higher/increased user satisfaction in the library.

Peers

In comparing the 2003 UM range with the aggregate mean of all participating ARL College or University libraries (n=65) on each of the three general satisfaction questions, UM scores are marginally lower—6.83-7.26 vs. 6.63-7.23 (ARL 2003 Notebook, p. 94; UM 2003 Notebook, p. 26). See table 7.

In comparing the 2006 UM range with the aggregate mean of all participating ARL College or University libraries (n=46) on each of the three general satisfaction questions, UM scores are very similar to the ARL mean range of 7.01-7.41 at 6.92-7.51 (ARL 2006 Notebook, p. 165; UM 2006 Notebook, p. 34).

Correlations

Do mean ratings of the affect of service domain correlate to the mean ratings of overall service quality, as measured by LibQUAL+ perceived means? To examine the relationship between the quality of library service (i.e., perceived means of affect of service items) and overall user satisfaction (i.e., rating of overall quality of service), a simple bivariate Pearson-Product Moment Correlation was calculated in SPSS. The results from 2003 showed a positive relationship between the two variables ($r = .71$, $p < 0.01$, two-tailed). An examination of the descriptive statistics shows the perceived mean of service affect at 7.0 (SD = 1.3) and the mean rating of overall service quality at 6.9 (SD = 1.6). Additionally, the coefficient of determination indicated that 50 percent of the change in perception of service is determined by respondents overall satisfaction with the library, a large effect size ($r^2 = .50$). In 2006, there was similar significance in the relation between the two variables and large effect size: 41 percent of change was determined by each variable ($r = .64$, $p < 0.01$, two-tailed; $r^2 = .41$). 2006 results show the perceived mean of service affect at 7.2 (SD = 1.2) and the mean rating of overall service quality at 7.2 (SD = 1.5).

Do mean ratings of general satisfaction with treatment received at the library differ across user types? To answer this question, an analysis of variance was conducted in SPSS to compare all user groups against each other for mean ratings in response to the question: In general, I am satisfied with the way I am treated at the library. There were no significant differences between any of the user groups in either 2003 or 2006 ($p > .05$).

Do mean ratings of general satisfaction with library support differ across user types? ANOVA tests were conducted in SPSS to compare all user groups against each other for mean ratings in response to the question: In general, I am satisfied with library support for my learning, research, and/or teaching needs. There were no significant differences between any user groups in 2003 ($p > .05$). In 2006, a one-way ANOVA showed F to be significant beyond the .05 level: $F(4,501) = 3.32$; $p = .011$. The Tukey HSD procedure revealed a significant difference between undergraduate students and faculty ($p < .05$), as well as between graduate students and faculty ($p < .01$); as undergraduate (M = 7.10, SD = 1.66) and graduate students (M = 7.17, SD = 1.65) rated their general satisfaction higher than faculty (M = 6.51, SD = 1.88).

Do mean ratings of overall library satisfaction differ across user types? ANOVA tests were conducted in SPSS to compare all user groups against each other for mean ratings of overall library satisfaction. There were no significant differences between any of the user groups in either 2003 or 2006 ($p > .05$).

Information Literacy Outcomes

Survey respondents were asked five questions to indicate information literacy outcomes, on a scale of 1 to 9. The mean scores on each of the five items for all respondents in 2003 fell in the range of 5.14-6.63, and in 2006 in the range of 5.46-7.29. With one exception, the mean scores for all four user types on all five items were higher in 2006 than in 2003. (Graduate students responded with a marginally lower mean score in 2006 compared to 2003 on the statement, "The library helps me stay abreast of developments in my field(s) of interest" (i.e., -0.19).

Peers

In comparing the overall 2003 UM mean range with same for all participating ARL College or University libraries (n=65), overall UM scores are slightly lower than the ARL mean range of 5.56-6.79 at 5.41-6.59 (ARL 2003 Notebook, p. 94; UM 2003 Notebook p. 26). See table 8.

In comparing the overall 2006 UM range with the aggregate mean of all participating ARL College or University libraries (n=46), overall UM scores are slightly lower than the ARL mean range of 5.84-6.99 at 5.71-6.91 (ARL 2006 Notebook, p. 165; UM 2006 Notebook, p. 34). See table 8.

T-tests comparing the means of the 2003 and 2006 information literacy outcomes data indicated a significant difference between the means overall ($p < .01$) and for undergraduate students ($p < .01$), graduate students (in all cases $p < .01$), and faculty ($p < .01$).

Library User Comments

Comments submitted via the 'box' on both survey iterations were evaluated using content analysis techniques. In 2003, 459 respondents (49%) commented, resulting in 727 unique comments. In 2006, 228 respondents (45%) provided 321 distinct comments. Independent coders grouped each comment into one of twenty-two categories. The categories with the most comments in 2003 were Information Center, General/Overall, Resources, Access to Physical Collections, Environment; and in 2006 these were similar with Information Center, General/Overall, Access to Physical Collections, Study Space, and eJournals the top five categories. See table 9.

Between 2003 and 2006 the percentage of comments on Access to Physical Collections, Databases, the Information Center, and Study Space increased by at least one percent. During this same time the percentage of comments that decreased by at least one percent included Resources, Physical Collections, Personnel, Hours, Circulation, and the Environment. See table 9.

In addition to categorizing the comments by content, the content charge was also recorded, indicating if the comment was positive, negative, or neutral. The areas with the most negative comments in 2003 were Access to Physical Collections, Environment, and Resources; in 2006 the top three areas of concern were Access to Physical Collections, Study Space, and Environment and eJournals (same percentage of comments). Areas that were praised highest in 2003 included General/Overall, Information Center, and Personnel; in 2006 the top three were General/Overall, Information Center, and ILL. See table 10.

Zones of Tolerance

"A 'zone of tolerance' can be defined as the distance between 'minimally-acceptable' and 'desired' service levels." (Cook, Heath, & Thompson, 2003, p. 116) Respondents' perceptions ideally fall within this zone. Looking at the distance between respondents' perceptions of service levels and their minimally-acceptable and desired levels reveals areas in which the library is

meeting respondents' expectations and areas that fall short. The closer the perceived service level is to the desired service level, the better the library is doing in the view of respondents.

In 2003, aggregate responses for UM indicate that the perceived service level for "The printed library materials I need for my work," was below the minimum level desired (i.e., adequacy mean of -0.14) (see table 11). This was the case in 2006 for "Print and/or electronic journal collections I require for my work" (i.e., adequacy mean of -0.14) (see table 12). In 2006, areas that the library is perceived to be barely meeting the minimum expectation of respondents are (adequacy gap parenthetically noted):

- The printed library materials I need for my work (0.06)
- A library Web site enabling me to locate information on my own (0.07)
- Easy-to-use access tools that allow me to find things on my own (0.11)

Areas in 2006 that the library was perceived to be near the desired levels of service were (service superiority gap parenthetically noted):

- Convenient service hours (0.19)
- Community space for group learning and group study (0.43)
- Employees who deal with users in a caring fashion (0.47)

Overall at UM, for both 2003 and 2006, respondents rated questions/statements in the Information Control domain with the highest desired service levels, and this domain also reveals the largest gap between perceived and desired service levels for respondents. The item with the lowest desired service level for both 2003 and 2006 was given to the statement/question "Community space for group learning," part of the Library as Place domain. See tables 13 and 14.

Selected User Group Observations

Do mean ratings of library service quality, as measured by LibQUAL+ perceived means, differ across user types? An analysis of variance conducted in SPSS to compare the overall means on the 22 Core LibQUAL items, for each of the three domains – affect of service, library as place, and information control—indicated a significant difference between groups in each of the three domains in 2003: F was significant beyond the .05 level for Affect of Service ($F(4,932) = 3.06$; $p = .016$), Library as Place ($F(4,925) = 3.16$; $p = .014$), and Information Control ($F(4,933) = 3.1$; $p = .015$). In 2006, F was significant beyond the .05 level for one of the three domains, Information Control: $F(4,501) = 2.56$; $p = .038$. In 2003, the Tukey HSD procedure reveals significant differences between the following:

- undergraduate students ($M = 6.89$, $SD = 1.21$) had lower mean perceptions of Affect of Service than faculty ($M = 7.25$, $SD = 1.47$),
- undergraduate students ($M = 6.80$, $SD = 1.38$) had higher mean perceptions than graduate students ($M = 6.41$, $SD = 1.49$) on the Library as Place, and
- undergraduate students ($M = 7.06$, $SD = 1.12$) had higher mean perceptions of Information Control than did faculty ($M = 6.74$, $SD = 1.37$).

Opportunity Areas

Areas of greatest concern as measured by the gap between respondents perceived and desired service levels:

2003

Group	2003	2006
Overall	<ol style="list-style-type: none"> 1. The printed library materials I need for my work 2. Easy-to-use access tools that allow me to find things on my own 3. Making electronic resources accessible from my home or office 	<ol style="list-style-type: none"> 1. Print and/or electronic journal collections I require for my work 2. A library web site enabling me to locate information on my own 3. Easy-to-use access tools that allow me to find things on my own
Undergraduate	<ol style="list-style-type: none"> 1. Easy-to-use access tools that allow me to find things on my own 2. Library space that inspires study and learning 3. Employees who instill confidence in users 	<ol style="list-style-type: none"> 1. Community space for group learning and group study 2. Library space that inspires study and learning 3. Easy-to-use access tools that allow me to find things on my own
Graduate	<ol style="list-style-type: none"> 1. Print and/or electronic journal collections I require for my work 2. The printed library materials I need for my work 3. Easy-to-use access tools that allow me to find things on my own 	<ol style="list-style-type: none"> 1. Library space that inspires study and learning 2. Print and/or electronic journal collections I require for my work 3. The printed library materials I need for my work
Faculty	<ol style="list-style-type: none"> 1. The printed library materials I need for my work. 2. Print and/or electronic journal collections I require for my work 3. Easy-to-use access tools that allow me to find things on my own 	<ol style="list-style-type: none"> 1. Print and/or electronic journal collections I require for my work 2. The printed library materials I need for my work 3. Making electronic resources accessible from my home or office
Staff	<ol style="list-style-type: none"> 1. The printed library materials I need for my work 2. Print and/or electronic journal collections I require for my work 3. A library web site enabling me to locate information on my own 	<ol style="list-style-type: none"> 1. Print and/or electronic journal collections I require for my work 2. Easy-to-use access tools that allow me to find things on my own 3. Library space that inspires study and learning

Areas of importance as measured by respondents desired service levels:

Group	2003	2006
Overall	<ol style="list-style-type: none"> 1. Making electronic resources accessible from my home or office 2. A library web site enabling me to locate information on my own 3. Easy-to-use access tools that allow me to find things on my own 	<ol style="list-style-type: none"> 1. Print and/or electronic journal collections I require for my work 2. A library web site enabling me to locate information on my own 3. Making electronic resources accessible from my home or office
Undergraduate	<ol style="list-style-type: none"> 1. A library web site enabling me to locate information on my own 2. Easy-to-use access tools that allow me to find things on my own 3. Making electronic resources accessible from my home or office 	<ol style="list-style-type: none"> 1. Making electronic resources accessible from my home or office 2. Easy-to-use access tools that allow me to find things on my own 3. Print and/or electronic journal collections I require for my work
Graduate	<ol style="list-style-type: none"> 1. Making electronic resources accessible from my home or office 2. The electronic information resources I need 3. Print and/or electronic journal collections I require for my work 	<ol style="list-style-type: none"> 1. Print and/or electronic journal collections I require for my work 2. Making electronic resources accessible from my home or office 3. A library web site enabling me to locate information on my own
Faculty	<ol style="list-style-type: none"> 1. A library web site enabling me to locate information on my own 2. Timely document delivery/interlibrary loan 3. Making electronic resources accessible from my home or office 	<ol style="list-style-type: none"> 1. Print and/or electronic journal collections I require for my work 2. Timely document delivery/interlibrary loan 3. Easy-to-use access tools that allow me to find things on my own
Staff	<ol style="list-style-type: none"> 1. A library web site enabling me to locate information on my own 2. Making electronic resources accessible from my home or office 3. Making information easily accessible for independent use 	<ol style="list-style-type: none"> 1. A library web site enabling me to locate information on my own 2. Employees who are consistently courteous 3. Easy-to-use access tools that allow me to find things on my own

Areas of least concern as measured by the gap between respondents perceived and desired service levels; areas where UM is closest to meeting respondents' desired service levels:

Group	2003	2006
Overall	<ol style="list-style-type: none"> 1. Community space for group learning and study 2. Employees who deal with users in a caring fashion 3. Giving users individual attention 	<ol style="list-style-type: none"> 1. Convenient service hours 2. Community space for group learning and study 3. Employees who deal with users in a caring fashion
Undergraduate	<ol style="list-style-type: none"> 1. Employees who deal with users in a caring fashion 2. Giving users individual attention 3. Timely document delivery/interlibrary loan 	<ol style="list-style-type: none"> 1. Convenient service hours 2. Readiness to respond to users' questions 3. Timely document delivery/interlibrary loan
Graduate	<ol style="list-style-type: none"> 1. Community space for group learning and study 2. Giving users individual attention 3. Employees who deal with users in a caring fashion 	<ol style="list-style-type: none"> 1. Convenient service hours 2. Community space for group learning and group study 3. Willingness to help users
Faculty	<ol style="list-style-type: none"> 1. Community space for group learning and study 2. Quiet space for individual activities 3. A comfortable and inviting location 	<ol style="list-style-type: none"> 1. Community space for group learning and group study 2. Convenient service hours 3. Quiet space for individual activities
Staff	<ol style="list-style-type: none"> 1. A getaway for study, learning, or research 2. Community space for group learning and group study 3. Giving users individual attention 	<ol style="list-style-type: none"> 1. Quiet space for individual activities 2. Community space for group learning and group study 3. Convenient service hours

Areas of least importance as measured by respondents desired service levels:

Group	2003	2006
Overall	1.Community space for group learning and group study 2.Giving users individual attention 3.Library space that inspires study and learning	1.Community space for group learning and study 2.Giving users individual attention 3.Quiet space for individual activities
Undergraduate	1.Giving users individual attention 2.Community space for group learning and study 3.Employees who instill confidence in users	1.Giving users individual attention 2.Employees who instill confidence in users 3.Timely document delivery/interlibrary loan
Graduate	1.Community space for group learning and group study 2.Giving users individual attention 3.A comfortable and inviting location	1.Community space for group learning and study 2.Giving users individual attention 3.Employees who instill confidence in users
Faculty	1.Community space for group learning and group study 2.Quiet space for individual activities 3.Library space that inspires study and learning	1.Community space for group learning and group study 2.Quiet space for individual activities 3.Library space that inspires study and learning
Staff	1.Community space for group learning and group study 2.A getaway for study, learning, or research 3.Library space that inspires study and learning	1.Community space for group learning and study 2.Quiet space for individual activities 3.Giving users individual attention

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