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LibQUAL+ in the local context: results, action and evaluation.

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Abstract

This paper discusses the use of the LibQUAL+ library survey instrument and its ability to define an agenda for further improvements in a setting where quality maturity is high and library performance tends to be generally acknowledged as good. The results from the survey run in 2003 and 2005 are presented, and how these results have been used to form a change agenda discussed. In particular the indications of the effect of improvement projects across the years are described. The revelation of differing perceptions of library staff and users to the service is described, and the approaches taken to close this gap through more effective internal marketing and communication are discussed. Comparisons of the LibQUAL+ results with an internal exit questionnaire are also presented. Conclusions about the benefit of the use of the LibQUAL+ survey instrument within a local context of quality are drawn.

Keywords

LibQUAL+, performance measurement, user surveys, library service quality

Introduction

The Defence College of Management and Technology (previously know as the Royal Military College of Science) traces its origins back to 1772. The college moved to its present site at Shrivenham in 1946. In 1984 the MOD awarded a contract to Cranfield University for the provision of academic teaching, support and research. Today this unique faculty undertakes the education of armed forces, civil servants and industry personnel from all over the world.

The Shrivenham campus of Cranfield University is certainly not typical of the majority of UK Higher Education, but the methods used by the Library for customer understanding does reflect the experience of other quality driven academic library services in the UK.

At Shrivenham the first large scale general student experience survey took place in 1993. Simple exit questionnaires were subsequent initiated from 1994 onwards and provide a baseline satisfaction rating, but without gap analysis or associated importance ratings. The latter has now been added to University's instrument. Since the Shrivenham Library's formal commitment to TQM in late 1993 six major designed surveys have been undertaken in the ensuing ten years (See Table 1).

Table 1: Surveys undertaken at the DCMT Shrivenham Campus of Cranfield University

Year	Survey Methods:
1996	Information Services Survey, conducted using the full Priority Research (PR) methodology with focus groups, priority, opinion and satisfaction ratings, covering the then converged Library and IT services
1997	Defence Technology MSc & MA Course Students surveyed using the previous instrument as this key client student cohort was not on campus during the 1996 survey
1998	Researchers Survey, the first local web-based survey using the PR methodology seeking to reveal deeper information about a growth clientele suggested by previous surveys to have unmet needs
1999	SCONUL ACPI Working Group on User Surveys pilot, using a Satisfaction versus Importance Template; PR analysis, and providing comparison with other institutions
2001	University Libraries Survey, using the SCONUL Template with additional questions; and PR analysis
2003	The LibQUAL+ Pilot, chosen by Cranfield in the context of a by now biennial effort to explore user satisfaction and concerns at deeper level than the annual student exit questionnaires
2005	LibQUAL+, looking to evaluate any change in user opinion since 2003.

LibQUAL+ 2003

In 2003 Cranfield University undertook the UK LibQUAL+ pilot along with nineteen other UK Higher Education Institutions. 538 surveys were completed at Cranfield University, a total of 166 at the Shrivenham campus. Due to the nature of the campuses, and the unique nature of Shrivenham, analysis by campus library was essential for all our stakeholders. Cranfield commissioned the Library and Information Statistics Unit (LISU) at Loughborough to conduct further analysis on the results by campus, gender and discipline; and to benchmark the results against the SCONUL consortium results and against a selection of US Libraries.

The LibQUAL+ results in 2003 for the DCMT Library showed some significant differences to the aggregate SCONUL results. For Cranfield some areas of Affect of Service and Library as Place were above the desired level, as shown in Table 2. The former shows the very high standards of customer care achieved by staff, and the latter perhaps indicates the quality of library space. No areas fell below the minimum,

but it was possible to define an agenda for improvement from those questions receiving the lowest adequacy means (falling below minimum expectations). This suggests improvement action in the areas of Information Control. Eleven out of the bottom twelve rated questions were in this area, and none of the questions in this area figured in best thirteen rated questions.

Table 2: LibQUAL+ results for DCMT Library 2003

ID	Question text	Means					
		minimum	desired	perceived	adequacy	superiority	N
Access to Information							
AI-1	Print and/or electronic journal collection I require for my work	6.04	7.68	6.81	0.77	-0.87	160
AI-2	Convenient opening hours	5.71	7.22	6.67	0.96	-0.55	162
AI-3	The printed library materials I need for my work	5.96	7.58	6.67	0.72	-0.91	163
AI-4	The electronic information resources I need	6.34	7.94	7.16	0.82	-0.78	165
AI-5	Timely document delivery/interlibrary loan	6.17	7.66	6.80	0.62	-0.86	143
Affect of service							
AS-1	Library staff who instil confidence in users	5.53	7.52	7.11	1.58	-0.42	161
AS-2	Readiness to respond to users' enquiries	6.35	7.86	7.62	1.27	-0.24	165
AS-3	Willingness to help users	6.30	7.82	7.69	1.39	-0.13	166
AS-4	Dependability in handling users' service problems	6.14	7.66	7.29	1.15	-0.37	160
AS-5	Giving users individual attention min	5.60	7.21	7.28	1.68	**0.07**	166
AS-6	Lib staff who have knowledge answer user questions	6.23	7.84	7.59	1.36	-0.25	166
AS-7	Library staff who are consistently courteous	6.09	7.56	7.98	1.89	**0.42**	166
AS-8	Library staff who deal with users in caring fashion	5.82	7.25	7.59	1.77	**0.34**	165
AS-9	Lib staff who understand the needs of their users	6.20	7.77	7.34	1.14	-0.42	166
Library as place							
LP-1	Quiet space for individual work	5.32	6.69	6.70	1.38	**0.01**	150
LP-2	A comfortable and inviting location	5.20	6.97	7.19	1.99	**0.22**	162
LP-3	Library space that inspires study and learning	5.21	6.84	6.66	1.45	-0.18	154
LP-4	Space for group learning and group study	4.26	5.49	5.93	1.67	**0.44**	127
LP-5	A haven for study, learning, or research	5.45	7.06	6.69	1.25	-0.37	157
Personal control							
PC-1	Easy-to-use access tools allow me find on my own	6.12	7.96	6.60	0.48	-1.36	164
PC-2	Convenient access to library collections min	5.84	7.42	6.79	0.95	-0.63	164
PC-3	A lib Web site enabling me to locate info on my own	6.35	7.99	6.88	0.53	-1.11	166
PC-4	Modern equipment lets me easily access needed info	6.18	7.83	6.99	0.80	-0.84	163
PC-5	Making info easily accessible for independent use	6.18	7.76	7.07	0.89	-0.69	165
PC-6	Making electronic resources accessible from home or office	6.14	7.88	6.54	0.40	-1.34	155
Overall		5.88	7.48	7.04	1.16	-0.44	166

Further analysis was conducted on the perceptions of the DCMT library staff in comparison to the users. The perceived ratings given by library staff we on the whole higher than the perceptions of the users. The main differences were found in AI-1 “Print and/or electronic journal collection I require for my work” and AI-4 “The electronic information resources I need”; in both these areas the library staff gave a positive superiority mean (meeting or exceeding desired expectations) of 0.10, where as the users gave these areas a negative score (see Table 2). The users and staff also had differing views on question AS-7 “Library staff who are consistently courteous”, although the users gave the staff a positive superiority mean, the staff gave a superiority mean of -0.70.

Agenda for Change

Although pleased with the outcomes of the LibQUAL+ survey, it was important to act on the findings and form an agenda for change based on the results. From the detailed analysis conducted four action points were identified:

1. Information skills training
2. Improving staff specialist skills
3. Access to electronic resources
4. Customer care to different users

The five Information Literacy questions which are supplementary to the core questions detailed in Table 2 received the lowest mean scores at Cranfield University in 2003. As a result Cranfield has invested in the development of an electronic defence specific Information Literacy tutorial. The tutorial has been based on the

SCONUL Seven Pillars of Information Literacy. Further details of this project were presented by Hunn, Elliott and Town at this conference.

Although scoring well in Affect of Service questions associated with customer care, there was a recognised gap in the library staffs' subject specialist expertise. This, coupled with other internal factors, caused the library to re-evaluate staff roles and responsibilities. A new post of Information Specialist has been developed to replace our previous Assistant Librarians with the emphasis on providing a tailored information service in a defined subject area to specific user groups.

Within the core questions shown in Table 2, opportunities for improvement were identified in the Personal Control dimension; specifically questions PC-1 (Easy-to-use access tools allow me find on my own), PC-6 (Making electronic resources accessible from home or office) and PC-3 (A library Web site enabling me to locate information on my own). It was felt that by improving the library Web site these three aspects of service could be improved. There was a recognised need to improve the library Web site before the survey was conducted in 2003, however the results helped focus staff resources at the development of a new library portal. In 2003 the library Web site consisted of six static html pages. After two years of development the DCMT Library will be launching a new library Web site in September 2005. It will give access to the full range of electronic resources provided by the library, as well as current subject information including details of conferences, recent publications, latest research and links to relevant professional associations.

One result which was unexpected arose out of the detailed analysis conducted by gender in the Affect of Service dimension. There was no difference in the minimum acceptable level between men and women; however women had a significantly higher desired level than men. They also reported a significantly lower perception on this dimension, leading to a significantly smaller adequacy gap and greater superiority gap than men. Looking at perceived levels for the individual items on this dimension, women reported lower means than men on all of them, and the difference was statistically significant for six of the nine items. One explanation that has been offered for this is the fact that the user population at the Shrivenham campus is predominantly male and the staff population is predominantly female. It could be deduced that the female staff are more likely to be nice to the male students. In order to improve the female users' perceptions of the staff the issue has been highlighted to them and customer care training re-emphasised.

LibQUAL+ 2005

In 2005 Cranfield University decided to repeat the LibQUAL+ survey to access the impact of the changes implemented. 768 surveys were completed at Cranfield University, a total of 237 at the Shrivenham campus between February and April 2005. This was a response increase of over 40% in comparison to 2003, attributed to an increase in survey promotion throughout the University. Since 2003 the statistical skills needed to conduct further analysis on the results had been developed in house and again detailed analysis of the results were conducted for each campus, by user group and subject discipline.

Again, the results for Cranfield University were good and above the SCONUL average for the year, as shown in Table 3. The Library as Place dimension saw the biggest negative change in perceptions, and subsequently a larger superiority gap. As the library building has not altered since 2003 this has been attributed to a change in user perceptions and the possible impact of the library being moved in August 2005. Although this had not happened at the time of the survey there is a possibility that the users were already evaluating the current surroundings in comparison to the new library.

A more dramatic difference was found in the results from Library Staff in 2005. There was a large increase in expectations, especially in the Information Control and Library as Place dimensions, about 75% of questions saw an increase in Minimum and Desired means. There was a decrease in perceptions across all dimensions, with half the perceived means decreasing between 2003 and 2005. Out of all the analysis conducted the only negative adequacy mean was given by library staff for question IC-2 “A library Web site enabling me to locate information on my own”. One of the positive impacts of LibQUAL+ can be seen in the change of library staff expectations. With the knowledge that the library scored very well in 2003 the staff have increased their expectations in 2005 and are seeking a higher quality of service.

Table 3: LibQUAL+ results for DCMT Library 2005

ID	Question text	Means					
		minimum	desired	perceived	adequacy	superiority	N
Affect of service							
AS-1	Library staff who instil confidence in users	5.77	7.53	7.18	1.41	-0.35	233
AS-2	Giving users individual attention min	5.94	7.32	7.31	1.37	-0.02	232
AS-3	Library staff who are consistently courteous	6.37	7.55	7.83	1.46	**0.28**	234
AS-4	Readiness to respond to users' enquiries	6.48	7.74	7.77	1.29	**0.02**	235
AS-5	Lib staff who have knowledge answer user questions	6.42	7.73	7.50	1.08	-0.23	234
AS-6	Library staff who deal with users in caring fashion	5.88	7.26	7.44	1.56	**0.18**	231
AS-7	Lib staff who understand the needs of their users	6.22	7.51	7.28	1.06	-0.23	233
AS-8	Willingness to help users	6.23	7.68	7.61	1.37	-0.07	236
AS-9	Dependability in handling users' service problems	6.25	7.55	7.30	1.05	-0.25	213
Information control							
IC-1	Making electronic resources accessible from home or office	6.08	7.67	6.41	0.33	-1.26	230
IC-2	A lib Web site enabling me to locate info on my own	6.34	7.85	6.72	0.38	-1.13	232
IC-3	The printed library materials I need for my work	6.36	7.40	6.91	0.55	-0.49	222
IC-4	The electronic information resources I need	6.41	7.71	6.97	0.56	-0.74	234
IC-5	Modern equipment lets me easily access needed info	6.41	7.72	7.07	0.65	-0.65	229
IC-6	Easy-to-use access tools allow me find on my own	6.24	7.62	6.69	0.46	-0.93	234
IC-7	Making info easily accessible for independent use	6.16	7.50	6.79	0.64	-0.71	231
IC-8	Print and/or electronic journal collection I require for my work	6.38	7.73	7.02	0.64	-0.71	223
Library as place							
LP-1	Library space that inspires study and learning	5.86	7.21	6.50	0.64	-0.71	228
LP-2	Quiet space for individual work	6.97	6.97	6.60	0.75	-0.37	226
LP-3	A comfortable and inviting location	5.80	7.21	7.21	1.41	**0.00**	229
LP-4	A haven for study, learning, or research	5.71	7.23	6.75	1.05	-0.48	224
LP-5	Space for group learning and group study	4.72	5.86	5.74	1.02	-0.12	189
Overall		**6.11**	**7.46**	**7.05**	**0.94**	**-0.41**	**236**

Results of Actions

All five questions that measure the impact of Information Literacy training saw an increase in mean scores between 2003 and 2005, as shown in Table 4.

Table 4: Information Literacy outcomes change

Question	Perceived Mean		+/-
	2003	2005	
The library helps me stay abreast of developments in my field(s) of interest.	5.98	6.04	0.06
The library aids my advancement in my academic discipline.	6.65	6.68	0.03
The library enables me to be more efficient in my academic pursuits.	6.65	6.76	0.11
The library helps me distinguish between trustworthy and untrustworthy information.	5.22	5.67	0.45
The library provides me with the information skills I need in my work or study.	5.72	5.95	0.23

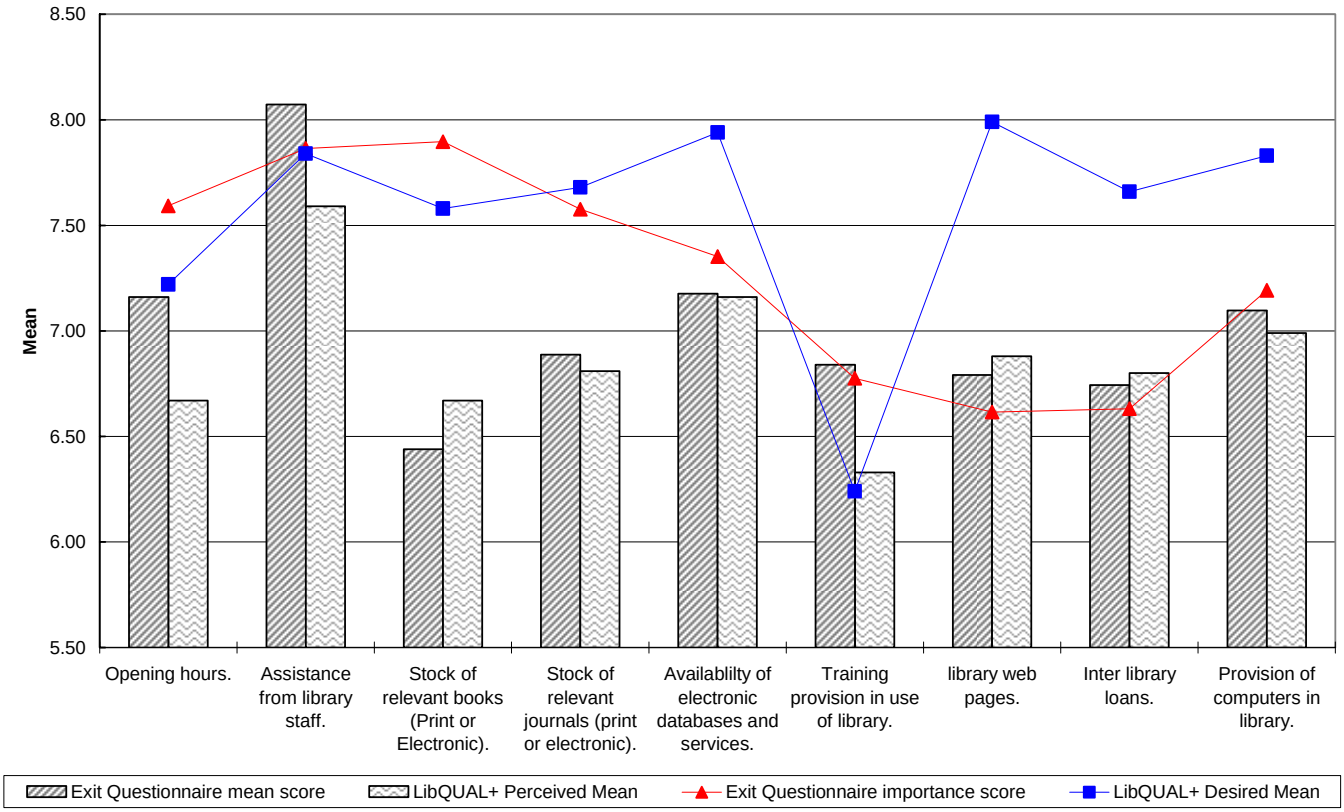
The positive impact of the new Information Specialist roles were highlighted with an increase in superiority means for the Affect of Service questions that evaluate the library staffs' subject specialist expertise. Superiority means also increased in questions "Easy-to-use access tools allow me find on my own" and "Making electronic resources accessible from home or office" but slightly decreased in "A library Web site enabling me to locate information on my own". Although all of these areas have further opportunities for improvement, the new library Web site had not been launched at the time of the survey. At the next repetition of LibQUAL+ it is hoped to see further positive changes in these areas.

Comparisons to Local Exit Survey

Like many other Higher Education institutions, Cranfield University conduct an exit questionnaire with their graduating student population at the end of each academic year. The survey contains nine questions relating to Library services, and gap theory analysis is applied by assessing level of importance as well as perception. In order to

see if any correlation existed between the two instruments the nine questions of the exit questionnaire were compared to the similar questions in the LibQUAL+ survey. In 2003 the exit questionnaire received 152 responses compared to 166 for the LibQUAL+ survey in 2003. The results of both surveys can be seen in Graph 1.

Graph 1: Comparisons of the Exit Questionnaire 2003 and LibQUAL+ 2003.



Both surveys had a similar number of responses but the set different agendas for action. When reviewing the perceived means from both instruments the LibQUAL+ survey appears to be more critical than the exit questionnaire when not closely matched. In setting an agenda for change, the differences in the importance and desired measures between the two instruments are more profound. Debate could be held on the difference between assessing users' perceived level of importance (in the

case of the exit questionnaire) and their desired perceptions (in the case of LibQUAL+), which could account for the difference in the two scores.

The exit questionnaire highlights opening hours and the two questions relating to stock as requiring action. Although LibQUAL+ also highlighted these issues it proceeded to highlight others as well, including the library web pages, availability of e-resources, inter-library loans and provision of computing facilities. It has been concluded that the LibQUAL+ instrument was more discriminatory in forming an agenda for change that the exit questionnaire, even when only considering nine out of the twenty two core questions.

Conclusion

In conclusion, LibQUAL+ as provided the library with detailed information on its users' perceptions of its service. It has highlighted differing perceptions of library staff and users to the service and in 2003 helped form an agenda for change. The specific examples of projects identified by and arising from the results presented saw a positive change between 2003 and 2005. In comparison to the other local survey conducted at the same time, LibQUAL+ provided more detailed information on the library service and was more discriminatory in setting the agenda for change.

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