

Cross-cultural implementation of LibQUAL+™: the French language experience

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Abstract

This paper presents a contextual analysis of cross-cultural and linguistic translation issues related to the French version of the LibQUAL+™ instrument as implemented in Canadian libraries in Canada during spring 2003. The research question of whether the French translation process has produced scores that are equivalent to the English versions of the instrument is answered affirmatively. The dimensions of the LibQUAL+™ tool for measuring service quality are validated through factor analysis and reliability analysis of the data collected through the participation of Laval University and the University of Ottawa. A three-dimension instrument is surfacing through this process, including the dimensions of Library as Place, Affect of Service and Information Control. The process of validation provides confidence that the versions of the instrument are culturally relevant in the target language, conceptually equivalent to the original, and ensure cross-cultural equivalence of the French version. The importance of a continuous iterative cycle of contextual analysis also has surfaced as an important component that provides assurance for the successful application of LibQUAL+™ in different environments.

Introduction

LibQUAL+™ is on a path to becoming an international protocol for evaluating library service quality. LibQUAL+™, a research partnership between ARL and Texas A&M University, started with 12 research libraries, members of the Association of Research Libraries, in 2000. The project included one Canadian library, York University from the very beginning. In 2003, 308 institutions participated, including two libraries that implemented a French version. French Canadians had the ability to fill in a French language version of the instrument for the first time. The French version of the instrument is the first attempt to translate the instrument into a non-English language.¹ Table 1 lists the history of Canadian institution participation over the last four years.

Table 1. Canadian Institution Participation 2000-2003

Institution Name	2000	2001	2002	2003
McGill University Libraries		X	X	X
Universite Laval				X
University of Alberta			X	X
University of Calgary			X	
University of Guelph		X		X

¹ In 2003 LibQUAL+™ included two linguistic variations in English, an American English version and a U.K. version, as well as the French translation that was initiated by the francophone universities in Quebec.

Table 1. Canadian Institution Participation 2000-2003

Institution Name	2000	2001	2002	2003
University of Manitoba				X
University of Northern British Columbia				X
University of Ottawa				X
University of Victoria				X
University of Waterloo		X		
York University Libraries	X		X	

Translation process for the French Canadian LibQUAL+™ survey

Important techniques for eliminating translation-related problems include back translation, consultation and collaboration with other people during the translation process, and pretesting or piloting whenever possible. All these steps were followed in the translation process. How to ask the same question in different languages while retaining the same meaning is a concern that comes up whenever a researcher seeks to use an instrument that was originally prepared in another language. The goal is to achieve semantic, conceptual, and normative equivalence when translating a questionnaire (Behling and Law, v). For this LibQUAL+™ translation, a joint team of five experts with expertise in both languages from the University of Laval and the Université de Montréal, two francophone institutions in Quebec, engaged in an extensive collaborative process.² They translated the original English version of the instrument into French, in the process discussing the accuracy, clarity, style, meaning, and culturally appropriate terms of the translation. A translation of the French version back into English was done by a graduate of the School of Translation at York University. The back translation process alone is unlikely to provide sufficient confidence in the translation of the instrument and it must be supplemented with extensive further advice and comment, which was sought. Linguistic validation of the translated instrument by an external expert³ followed. The expert was not presented with the information that this was implemented in Quebec. However, his first observation was that while this instrument would fit Quebec, it would need minor linguistic modifications for the libraries in France. This is not unlike the minor variations between the American English and the British English versions of the instrument showing the need for continuous contextual adaptation in different linguistic environments.

What's the ideal benchmark for translating instruments?

² Claude Bonnelly, U. Laval; Claude Busque, U. Laval; Jerry Bull, U. Montreal; Jean-Pierre Cote, U. Montreal; Olivier Paradis, U. Montreal.

³ **JEAN-CLAUDE GUÉDON** was the external expert. He has background in the History of Science and is presently Professor of Comparative Literature at the Université de Montréal.

Universal standards are difficult to come by in a process as fraught with interpretation as translation to and from another language. There is a model process employed at Statistics Canada, the federal agency mandated to provide data gathering and interpretation in both official languages.

Paul Kelly, a senior consultant working in the Questionnaire Design Research Centre, (QDRC) at Statistics Canada, shared the practices used in their development of bilingual questionnaires. From the beginning, translation issues are kept in mind. Often the very first draft of a questionnaire is developed in one language. Then very early on in the process, that questionnaire is translated. From there, the two different language versions of the questionnaire proceed in a five-step development process (translation, review, adjudication, qualitative review and field testing).

For the translation step, both subject matter experts and translation experts in the translation process are utilized. Kelly stressed that statistical expertise of these translators is invaluable to the quality of the translations.

The review and adjudication steps are a form of quality control. Back translation or reverse translation is often used. Another type of review is performed by the QDRC. During this review many things are checked, such as respondent-friendliness, interviewer-friendliness, and consistency of terminology and comprehension. The development team ensures that the questionnaires adhere to Statistics Canada's policies, which include the Policy on Review and Testing of Questionnaires, the Policy on Informing Survey Respondents, and the Official Languages Policy.

The qualitative review step is where the questionnaire is tested on participants who are (or who resemble) typical survey respondents. This can involve cognitive interviews and/or focus groups to explore respondents' comprehension of survey questions. One of the issues explored is consistency of comprehension across languages.

Finally, some sort of pretesting or field-testing is done (when there is time and budget to do so). As part of this field-testing, respondent and interviewer debriefings may take place. There are additional practices used at Statistics Canada by field collection staff relating to both official languages. However, the five-step process is the framework for bilingual questionnaire construction.

The boundaries of language and culture

The issue of whether we are moving across cultures or simply across different linguistic contexts of the same dominant culture was open when we initiated this line of research. In the process we discovered that despite some regional differences, overall there is a dominant North American library culture especially at it relates to higher education and research libraries in the U.S. and Canada. The major difference is the linguistic perspective, and this was substantiated in discussions with French librarians in Canada. Over the last 20 years the influence of the U.S. on English speaking Canada has been stronger than the influences coming from continental France, as researchers move more

freely within the English and French context in Canada, as well as between Canada and the U.S. Quebec, in particular, has a strong francophone tradition, but both Laval University and Université de Montréal are members of the Association of Research Libraries. University of Ottawa, a bilingual institution located in the Canadian capital, implemented both an English and a French survey, as the two linguistic versions were accepted as culturally uniform. Administrators at the University of Ottawa expressed the view that they had complete faith in the translation done by their colleagues at Quebec institutions. Follow up interviews in the institutional contexts where the French language version was developed again indicated the importance of continuous contextual adaptation even in the light of measuring well-established universal concepts.

Universal factors of library service quality

Scalable web infrastructure makes it possible to answer questions posed by earlier research regarding the implementation of tools for measuring library service quality at the international environment. Danuta Nitecki has expressed the need that “additional investigation is needed in many library settings to draw insights about what library users find important in judging service quality and to speculate if universally prioritized factors exist across all library settings” (Nitecki, 1999). The work of Phillip Calvert has given us some early insights from research conducted in New Zealand and the People’s Republic of China that academic library customers have very similar expectations of quality library service. He states “The three most common dimensions revealed so far are staff attitudes, the library environment, and services that help the customer to find and use library materials efficiently” (Calvert, 2001). These earlier observations and the three dimensions identified by Calvert have parallels with the results of the 2003 LibQUAL+™ analysis of the French Canadian implementation as is described below.

Methodological considerations

From the very beginning the French language translation was viewed as a pilot that would need to be validated both from a linguistic and cultural perspective, and from a positivistic statistical analysis perspective. The linguistic and cultural validation is an ongoing process that so far has confirmed the equivalency of the translation for the French Canadian environment but not necessarily for other environments where French is spoken. Our research indicates that there may be contextual variations in the linguistic expression of concepts between Canadian French and Continental French. This may be similar to the variations between the American English and the British English. People are often divided by a common language as expressed in popular terms; in other words, there is a tendency of linguistic variants to be pervasive in expressing dominant universal concepts partly because of geography and politics. The statistical analysis confirms the universality of the concepts measured by LibQUAL+™ across the linguistic and cultural settings where the instrument has been implemented, as is discussed below.

The technical infrastructure developed by ARL purposefully supports the implementation of variant linguistic manifestations across different types of libraries. Although the 2003 U.S. implementation included different types of libraries beyond just academic libraries,

the French language and British language implementations included only academic libraries.

The technical infrastructure that is in place supports the implementation of different language versions for different types of libraries, consortia customization, and adding the ability for some local customization of questions. An institution may choose to implement separate surveys for different parts of its operation (law, medical, etc.). Taking advantage of this flexibility, the University of Ottawa implemented two versions of the survey, one in French and another one in American English for their francophone and anglophone users respectively.

The process used at the University of Ottawa to implement LibQUAL+™ is an interesting one. Gisele De Villers was the project administrator at the Libraries. She reports that by drawing on the data element of language of preference imbedded in the University Registrar's and Human Resources Department's data files, as well as a language code in the library's patron database, double samples from both English and French speakers were drawn. Duplicate numbers were randomly selected for undergraduates, graduate students, and faculty based on the participant's language of choice.

Throughout the process, all communications about LibQUAL+™ were in two languages. For example, the welcoming e-mail sent by the University Librarian requesting participation included the option of receiving the questionnaire in the other official language than the one in which the note was written. The population at the University of Ottawa is approximately two thirds English-speaking and one third French speaking. The open-ended question at the end of the questionnaire elicited an equal proportion of comments in both languages, with written responses from more than 50% of all respondents. As mentioned earlier, University of Ottawa library staff previewed the questionnaire looking for phrasing of French questions leading to certain conclusions, and found that they had complete faith in the translation carried out by their colleagues at Laval and Montreal.

Although Laval participated as scheduled, the University of Montreal regrettably was not able to participate in 2003 due to a strike that took place that spring, yet they are ready to participate in the coming year having resolved the labor disputes successfully.

Factor analysis of the French language data

According to Behling and Law, if a concept is the same in two languages, it should possess the same structure. Factor analysis is a useful tool in this type of research. It is supposed that a concept has the same meaning in both language situations when factor analysis of the items in the same scientific survey in both implementations essentially yield the same dimensions with the same defining terms and loadings. They recommend "that exploratory and confirmatory factor analysis are useful for determining if this is in fact the case. The former is normally used when creating a new measure, the latter when translating an existing instrument with a known factorial structure" (Behring and Law,

2000). If the factorial structure of an instrument has been established in one culture, confirmatory factor analysis can be used to determine if the same factorial structure is present in a translated version.

A confirmatory factor analysis performed on the data collected from the French Canadian implementation using the four dimensions (Affect of Service, Information Access, Personal Control, and Library as Place) from the 2002 LibQUAL+™ questionnaire, 25 core items, showed similar reliability and validity coefficients as reported in the past (B. Thompson, Cook, and R. L. Thompson, 2002).

Additional exploratory factor analysis results reported at the LibQUAL+™ Results meeting in Toronto by Bruce Thompson (Cook, Heath and B. Thompson, 2003 forthcoming) revealed that a three-factor structure (22 core items) provides a more parsimonious and generalizable model. The change in the dimensionality is probably the result of both the minor wording changes introduced in 2003 as well as real shifts in user perceptions. Confirmatory factor analysis for the French Canadian data reported here (Table 3) also reveals a structure that supports the three-factor solution (Library as Place, Affect of Service and Information Control).

Table 2 presents the score reliability (Cronbach’s alpha) for the four-factor solution (Service Affect, Library as Place, Personal Control, Information Access) as well as for the three-factor solution (Service Affect, Library as Place, and Information Control) on the French Canadian data. Table 3 presents the pattern/structure coefficients from a principal component analysis of the French Canadian data and reports the correlation coefficients between the scores on the twenty-two items and the three factors. Table 4 shows the items as they appeared in the instrument for the French Canadian implementation.

Descriptive statistics and results for the French Canadian language data, including representativeness graphs, radar graphs, floating bar charts, and summary statistics for all LibQUAL+™ items, as well as the general satisfaction and perceived outcomes and use questions, are also reported in a separate publication (Cook, et al. 2003).

Table 2. Score Reliabilities (α) Across Four-Factor and Three-Factor Scales (n = 408)

	Chronbach’s Alpha
Four Factors	
Service Affect (9 items)	0.9304
Library as Place (5 items)	0.8498
Personal Control (6 items)	0.8500
Information Access (5 items)	0.7564
Total Score (25 items)	0.9421
Three Factors	

Service Affect (9 items)	0.9304
Library as Place (5 items)	0.8498
Information Control (8 items)	0.8725
Total Score (22 items)	0.9373

Table 3. Varimax-rotated Pattern/Structure Coefficients for Three-Factor Solution (n = 408 Participants; v = 22 items)

Item Core	Factor		
	I	II	III
Affect of Service			
AS-1 Employees who instill confidence in users	0.72	0.23	0.12
AS-2 Readiness to respond to users' questions	0.79	0.19	0.12
AS-3 Willingness to help users	0.85	0.19	0.16
AS-4 Dependability in handling users' problems	0.59	0.38	0.24
AS-5 Giving users individual attention	0.51	0.39	0.25
AS-6 Employees who have the knowledge	0.73	0.36	0.17
AS-7 Employees who are consistently courteous	0.82	0.11	0.19
AS-8 Employees who deal with users in a caring fashion	0.79	0.26	0.30
AS-9 Employees who understand the needs of their users	0.76	0.36	0.20
Library as Place			
LP-1 Quiet space for individual activities	0.11	0.13	0.70
LP-2 A comfortable and inviting location	0.31	0.18	0.75
LP-3 Library space that inspires study and learning	0.25	0.18	0.79
LP-4 Community space for group learning and group study	0.08	0.21	0.68
LP-5 A getaway for study, learning or research	0.21	0.19	0.81
Information Control			
AI-1 Print and/or electronic journal collections	0.09	0.60	0.15
AI-3 The printed library materials I need for my work	0.29	0.51	0.35
AI-4 The electronic information resources I need	0.16	0.82	0.16
PC-1 Easy-to-use access tools	0.30	0.65	0.13
PC-3 A library Web site enabling me	0.20	0.76	0.05
PC-4 Modern equipment to access information	0.30	0.68	0.23
PC-5 Making information easily accessible for independent use	0.34	0.64	0.20
PC-6 Electronic resources accessible from home or office	0.22	0.67	0.19

The items of the originally hypothesized four dimension solution are noted as AS = Affect of Service, LP = Library as Place, AI = Access to Information, and PC = Personal Control

There are certain similarities between the three factors that surfaced in the 2003 LibQUAL+™ implementation and the ones identified in earlier research by Calvert. The universality of the LibQUAL+™ factor structure is striking, and the implications of benchmarking across libraries and across borders has remarkable short- and long-term implications for developing cooperative and collaborative services (Kyrillidou, 1999).

As the standardized portion of LibQUAL+™ is gaining stability and applicability across different settings, the importance of understanding the local context is also increasing. LibQUAL+™ is not only the 22 standardized items though, it is 22-items plus a ‘blank’ box. A box where users are invited to provide commentary in their own language – the blank box when filled with users comments gives us additional insights on how users interpret library service quality at the local level. About half of the users who filled in the codified portion of the survey provided free-form comments regarding the services of their local libraries. In the end the limitations of crossing cultural and geographic boundaries in measuring and improving library service quality may be as much an issue of linguistic boundaries as one of interpretive skills in the presence of adequate linguistic ability.

Table 4. Items in English and French (22 core question)

Item Core (English)	Item Core (French)
Affect of Service	
AS-1 Employees who instill confidence in users	Un personnel qui inspire confiance
AS-2 Readiness to respond to users' questions	Empressement à répondre aux questions des usagers
AS-3 Willingness to help users	Volonté manifeste du personnel d'aider les usagers
AS-4 Dependability in handling users' service problems	Un traitement des problèmes de service à l'usager sur lequel on peut compter
AS-5 Giving users individual attention	Un service personnalisé à chaque usager
AS-6 Employees who have the knowledge to answer user questions	Un personnel compétent capable de répondre aux questions des usagers
AS-7 Employees who are consistently courteous	Un personnel toujours courtois
AS-8 Employees who deal with users in a caring fashion	Le personnel est attentif aux besoins des usagers
AS-9 Employees who understand the needs of their users	Un personnel qui comprend les besoins des usagers
Library as Place	
LP-1 Quiet space for individual activities	Un espace tranquille pour le travail individuel
LP-2 A comfortable and inviting location	Des locaux invitants et confortables
LP-3 Library space that inspires study and learning	Des locaux de bibliothèque qui incitent à l'étude et à l'apprentissage
LP-4 Community space for group learning and group study	Des aires communes pour l'étude et l'apprentissage en groupe
LP-5 A getaway for study, learning or research	Un refuge pour l'étude, l'apprentissage ou la recherche
Information Control	
AI-1 Print and/or electronic journal collections I require for my work	Les revues en versions électronique ou imprimée dont j'ai besoin pour mes travaux
AI-3 The printed library materials I need for my work	Les documents imprimés dont j'ai besoin pour mes travaux

AI-4 The electronic information resources I need	Les ressources d'information électroniques dont j'ai besoin
PC-1 Easy-to-use access tools that allow me to find things on my own	Des outils de repérage conviviaux qui me permettent de trouver par moi-même ce que je cherche
PC-3 A library Web site enabling me to locate information on my own	Un site Web qui me permet de repérer ce que je recherche de façon autonome
PC-4 Modern equipment that lets me easily access needed information	Un équipement moderne qui me permet un accès facile aux informations dont j'ai besoin
PC-5 Making information easily accessible for independent use	Documentation facilement accessible pour une utilisation autonome
PC-6 electronic resources accessible from home or office	L'accès à des ressources électroniques depuis mon domicile ou mon bureau

Franco-American cooperation

The question of whether a French version of LibQUAL+™ appropriate for French academic (and other) libraries in France can be tested is an open challenge and opportunity. Is there sufficient interest in France to engage in an international project like LibQUAL+™? Recent calls for Franco-American cooperation in the area of collecting and disseminating library statistics have been documented in the literature (Spohrer, 2002). Whether such efforts can include LibQUAL+™ as a total market survey of user perceptions and expectations will need to be considered.

Other international prospects

Apart from engaging libraries in France, the possibilities are also open for engaging other libraries in the international environment where English or French variants are used. Research libraries in Europe, as represented by LIBER, are another group that might find it useful to explore the international benchmarking prospects of LibQUAL+™. Interest has also been expressed by the European Business Schools Librarians Group, a group that represents constituencies from a variety of European countries. Libraries in Australia are also examining the prospects of participating in LibQUAL+™ in addition to their current user survey that has been developed by Rodski, an Australian marketing firm.

Plans are underway for a Swedish translation to be tested in 2004 with two libraries in Sweden participating in the project. General interest has also been expressed by countries including Turkey, Bahrain, Taiwan, and Japan. LibQUAL+™ is currently being translated into traditional Chinese by graduate students in the LIS Department of Fu-Jen University in Taiwan. Coordinating the development of these translations and engaging the constituencies in a useful and purposeful way is a formidable and exciting challenge.

Conclusion

There is always a danger of perceiving a total market survey like LibQUAL+™ under the scope of cultural dominance implications rooted in the Anglo-American tradition of research libraries. LibQUAL+™ is influenced by the strong movement towards accountability in the higher education environment in the U.S. where financial pressures on libraries and universities are placing an increasing reliance on user-based fees. This is an environment where balance of power is achieved by its distribution among multiple constituencies and stakeholders; user based research like LibQUAL+™ is providing a total market survey framework for keeping in touch with trends in perceptions and expectations of important user groups and constituencies.

Current times are probably not the best of times for moving a project like LibQUAL+™, with its roots in the U.S. into the international environment. The recent war in Iraq and the international political environment are historical circumstances that are presenting a special set of obstructive circumstances for globalizing LibQUAL+™.

However, user based research has universality beyond the Anglo-American world as other researchers have documented (Calvert, 2001). The lack of standardized user surveys had been perceived as a barrier in advancing our knowledge and ability to understanding users in earlier user studies conducted outside North America (Kyrillidou, 1990, 1993).

Convergence regarding the measurement of user perceptions and expectations of library service quality are probably strongly related to the convergence of access to electronic resources available to libraries. The world is becoming a smaller place as opportunities for global cooperation and harmonization are increasing. The appearance of a tool such as LibQUAL+™ for measuring library service quality across languages and cultures has probably been as much an issue of timing as well as a historical necessity (Cook, Heath, Kyrillidou, Webster, 2002). Library values as reflected in the library's physical environment (Library as Space), the warmth, empathy, reliability and assurance of library staff (Affect of Service) and the ability to control the information universe in an efficient way (Information Control) may be among the most unifying and powerful forces for overcoming language and cultural barriers, for bridging the worlds of our users, for improving library services, for the advancement and betterment of individuals and societies.

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