Comment sifting: pragmatic qualitative analysis of LibQUAL + Comments

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Introduction

Consider the virtues of the single comment box at the end of the LibQUAL+ survey. The survey creators present this box with the following simple request: "Please enter any comments about library services in the box below". The respondent may say anything at all – briefly or at length, focused on a single topic or letting the mind wander. Or the respondent may leave the box totally empty. This freedom and lack of manipulation lend a certain authenticity to whatever the respondent may contribute, and for this reason, comment data should be taken very seriously. The question becomes: how does a library extract and organize meaning from such a trove of information, and particularly when comments are counted not by the hundred, but by the thousand.

Kennesaw State University (KSU) is a large and rapidly growing university located 27 miles north of Atlanta, GA. In January 2015, KSU consolidated with Southern Polytechnic State University resulting in a combined student population of 32,000 undergraduate and graduate students. The new Kennesaw State University is among the top 50 largest public universities in the nation (KSU, 2014).

In 2013, KSU's Horace W. Sturgis Library conducted the LibQUAL+ survey. The survey ran from March 8th to April 15th, 2013 and resulted in 4,410 valid survey responses and 1,653 comments. The robust response did not come as any great surprise. The Sturgis Library first conducted the survey in the spring of 2011, receiving 5,253 valid survey responses and 1,856 comments – the highest number of responses received by any library in the USA in 2011 (Ms A Yeager 2013, pers.comm., 25 July).

The years 2011 and 2013 were lean years at KSU and no attempts were made to acquire specialized qualitative analysis software, such as NVivo or ATLAS.ti. In 2011, LibQUAL+ comments had been printed out and coded by hand, a very rewarding process but one that consumes a great deal of staff time and requires significant training and negotiation among coders to increase objectivity. In light of this knowledge and with the expectation of a large survey response, the library resolved to take a targeted approach with the 2013 LibQUAL+ comments. Rather than coding and classifying every comment, the library would look for patterns within areas of clear operational significance. Each identified area would be examined in depth. The hope, once the library had analyzed several areas, was that a picture would emerge of the entire organization.

This methodology will describe a process of summarizing comment data for a specific area of the library operation. The area might be a service, such as the online chat service or interlibrary loan. It might be a particular space within the library. Or it might be a resource or resource type, for example, books or electronic resources. These summarizing documents became known locally as mini-reports.

Little of this approach to comment analysis is truly original. However, two aspects deserve some attention. One, the methodology is not comprehensive; not every comment will be coded. Second, just as important as the analysis of comments is the presentation of that analysis. Too often, we go to great lengths to capture patterns within a set of data but then fail to take the final step, which is to bake that analysis into some digestible format. The mini-report was a solution to this problem.

Literature review

Since the early days of the LibQUAL+ survey, libraries have sought ways to make the comment data provided by respondents useful. It was, in fact, through the process of comment analysis that the early survey was refined into a more exact, user-friendly and effective instrument. (Guidry, 2002).

In 2009, Neurohr, Ackermann, O'Mahoney and White surveyed 641 LibQUAL+ participants to determine practices in regard to the qualitative analysis of comment data. They received 154 responses. The results, though arguably dated at this point, carry strong implications for the needs of library workers in terms of qualitative analysis.

Most participants, for example, used non-specialized software. The authors found that 73.7 per cent of respondents used Excel (though not necessarily exclusively) to facilitate the analysis of comment data. The actual coding of comments in most cases was conducted by one or two library workers. Of all, 55.8 per cent of respondents reported only one coder and an additional 26.9 per cent reported two coders. Time was the single largest challenge experienced by participants, followed by difficulties with the process of coding, insufficient technology and insufficient staff (Neurohr *et al.*, 2013).

These results indicate a large majority of LibQUAL+ practitioners who are taxed for time, human capital and technology. Further, respondents reported that they were analyzing LibQUAL+ comments to make improvements *within* the library and to communicate with administrative and non-administrative university stakeholders. Only 25.5 per cent of

respondents listed publication and conference presentation as among their uses of the data (Neurohr *et al.*, 2013).

Given these results, it is interesting that so little of the scholarly literature is representative of the constraints that are clearly being felt among library workers. Researchers at the University of Arizona utilized the N6 program, which later became NVIVO, and a working group of multiple coders to analyze 303 LibQUAL+ comments. The authors describe a process of "open coding" founded in "Grounded Theory" in which the working group engaged in multiple rounds of coding in an effort to improve reliability (Begay *et al.*, 2004).

The desire for objectivity among multiple coders drives so much of the complexity of this process. In two investigations of comment data at the University of Mississippi Libraries, the authors utilized multiple coders and the SPSS statistical analysis tool "to determine distribution, frequency and agreement among the three coders" (Greenwood *et al.*, 2011; Dennis *et al.*, 2013).

Dennis and Bower (2008) at Western Michigan University Libraries describe the analysis of a fairly large set of comment data (754 comments) using Atlas.ti. Here too we see an emphasis on the iterative process of coding and recoding to maintain "some degree of consistency and reliability".

Of the articles identified, only three (Jones and Kayongo, 2008; Washburn, 2013; Habich, 2008) reported using Excel as the primary tool for performing qualitative analysis. Qualitative analysis projects by Jones and Kayongo and Washburn used multiple coders and describe attempts to increase objectivity by redundant review of comment data and coder negotiations. Only the article by Habich described a methodology that utilized both Excel and a single coder.

Methodology

Cleaning and preparing data for analysis

The survey administrator downloaded comments into a .CSV file, which was then converted to an .XLS file for easy processing within Microsoft Excel. In all, 1,653 comments were received. A portion of the comments lacked informational value, for example, "N/A" or "No comments", and were removed from the spreadsheet. Sorting by the *TextResponse* column facilitated the process of locating and removing these comments. The Survey Administrator also deleted superfluous columns from the spreadsheet, including *id*, *SubmitDate* and *IsComplete*. Following these initial steps, the spreadsheet contained 1,574 comments deemed to have informational value.

The Survey Administrator shared the spreadsheet with a colleague who would assist with the comment analysis and the two performed a casual read of the comments. Patterns within the comment data were almost immediately recognizable. Themes emerged even from a cursory review, and the project team made note of keywords that should be investigated.

Identifying comments

The model for the mini-report began with an analysis of the online chat service. Based on reading and intuition, the project team identified four terms referring explicitly to the service: *chat*, *chats*, *online help* and *IM tool*. Others, for example *instant messenger*, were investigated but excluded from analysis, as they yielded no results. The team searched the spreadsheet for comments containing one or more keywords. It was often prudent to search only the first few letters of a keyword to capture cases where a term was misspelled. For each "hit", the row containing the comment was pasted into a new spreadsheet.

The resulting list of comments containing relevant keywords was then reviewed. In cases where two keywords (e.g. *chat* and *online help*) appeared in the same comment, duplicate rows occurred. All duplicates were deleted. The team also had to be vigilant to search for irrelevant usages. One comment complaining of "loud chatting" was omitted for lack of relevance to the chat service.

The team sorted the cleaned list of comments by *user group* and created a new first column, so that the comments could be numbered 1-n. See Appendix, Section 3, Comments in Context for an example of the format.

Coding comments

Two librarians coded the comments from the 2013 LibQUAL+ survey. The chat service mini-report served as a model that both librarians followed more or less independently, which is to say, each created a list of relevant comments for one of the agreed upon areas of interest, analyzed them and created a new mini-report from the resulting analysis (See Table I for a list of areas).

Many comments contained multiple discreet statements, which were coded for theme and for attitude. If ten people refer to noise within a space, then noise is clearly a theme. However, it is also important to note the attitude expressed. Eight people might say the space is too loud, while two say that it is nice and quiet. Coding was performed directly within the spreadsheet, though one could also print the comments and code by hand. The key is to identify dominant themes and attitudes.

Building the mini-report

The mini-report comprises three parts: a quantitative summary, a qualitative summary and the raw comments with their associated demographic information. The quantitative summary lists the keywords investigated and the number of relevant occurrences for each. Two additional tables display the number of occurrences for each user group and discipline, allowing the researcher to

Table I
Mini-report structure for the Horace W. Sturgis Library, 2013

Affect of service	Information control	Library as place
Chat service	Books	Graduate library
Circulation and reserves	Electronic resources	Second floor
Inter-library loan	Web site	Owl Space
Instruction and research Clinic		Signage
		Furniture

determine if each sub-group is commenting in proportion to its overall percentage of the university population (See the Appendix for an example of the mini-report formatting).

In the qualitative summary, the authors put down in plain language the various themes that arose within the comments and the attitude(s) for each theme (if any). Each theme and attitude was then indexed to one or more comments contained in Section 3 of the mini-report by the inclusion of a reference number. References therefore serve as a weighting mechanism. Paragraphs were used to group similar themes together, with the more highly weighted ones appearing first. Keywords in Section 3 are highlighted for easy reference.

Results

Over the Summer of 2013, the project team created 12 mini-reports spanning all 3 dimensions of the LibQUAL+ survey (Table I). The reports were shared with department heads and Library Administration. They were also stored on a public network drive for easy access by any member of the library staff.

Perhaps the single greatest benefit of the mini-report model is its flexibility. In the more common model in which each discrete statement within every comment is meticulously coded, one must complete the entire project before there is anything to show for it. Conversely, the mini-report model is more modular. Each report is its own unit that can be completed in a much shorter time. If the project gets sidetracked after the creation of only three mini-reports, then at least the library has those reports. Modularity, therefore, further increases flexibility by allowing the analyst(s) to prioritize areas of focus. Perhaps the library has just completed a major renovation of the ground floor and wants the investigation of this area to be the top priority. The mini-report makes this possible. A fuller view of the library as a whole can hopefully be surmised from a combination of mini-reports.

The mini-report also achieves flexibility by remaining, in many ways, a living document. New keywords or synonyms within the comment data can always be investigated and the analysis appended to the report. Likewise, there is no real end to the number of mini-reports that can be created. One can always investigate new areas of operational significance to obtain a fuller view.

Limitations

The mini-report model clearly has some limitations. First, because all comments are not coded and analyzed in unison, potentially valuable information is lost. Some comments might be ignored altogether if they do not contain one of the keywords being investigated. Second, some themes are not limited to a single area of operational significance. Rather, they may cut across the entire organization. The mini-report model makes it more difficult to tie these themes together. At times, the compartmentalization inherent within the model is a benefit rather than a weakness. Take noise as an example. Group study spaces provide a different context for noise than quiet study spaces, and it is therefore appropriate to look at the two separately. On the other hand, complaints about staff attentiveness might best be understood holistically as staff members move from station to station.

The model might fairly be accused of lacking the same level of objectivity as the standard model in that there is no formal taxonomy created and coded through a deliberative process of negotiation and iteration. What the model potentially lacks in objectivity, it attempts to reconcile with transparency. Section 3 of the report format, *Comments in Context*, is a listing of all relevant comments, inviting the reader to draw conclusions different from those contained within the qualitative summary.

Finally, some areas of operational significance were difficult to isolate by keywords and, therefore, difficult to analyze. The more specific and concrete the subject of the mini-report, the easier the process is. The mini-report on furniture, for example, was easy to approach via concrete nouns, such as *chair*, *desk*, *table*, etc. The instruction and research clinic report, on the other hand, was more difficult. Branding also helps. Branded spaces, such as KSU's Owl Space, facilitate this process as many users will call the space by its true name (See Appendix for the Owl Space Report).

Conclusions

Dennis *et al.* conclude a 2013 article with a magic question: "How can a balance be struck between statistical rigor and the need to nimbly reflect local conditions?" A similar question might also be asked: How can a balance be struck between statistical rigor (in this case of the established qualitative methods) and the realities of time, personnel and expertise that actually exist within many libraries. If we do not allow for alternate methods, or if there are no models to guide us, then we are essentially saying: well, if you cannot analyze data the way the big kids do it, do not bother.

To be clear, this article is in no way a criticism of established qualitative methods, but merely a suggestion that methods might be in some way tailored to realities on the ground. There may be some accommodation between methodological doctrine on the one hand and the anemic solution of merely handpicking anecdotes on the other. This need is particularly strong for libraries that do not intend to publish results but are simply looking for credible evidence upon which to base internal decisions. The author's hope is that this article will contribute to this much-needed conversation.

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FURTHER READING

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Appendix: Report on Owl Space – based on comments received from the 2013 LibQUAL+ survey

Section 1: qualitative summary

Table AI
Quantitative summary – keywords

	Words investigated	No. of relevant occurrences	No. of unique comments/total
	"Owl Space"	41	38/1574
	Owlspace	7	6/1574
	Owl nest	1	1/1574
	Owl Expres	1	1/1574
	basement	18	18/1574
	"Bottom floor"	4	4/1574
	Ground	1	1/1574
Total	7	73	66/1574

Table AII
Quantitative summary – keywords by user group

	User group	User group % of pop	No. of references	% of total references
	Faculty	6.9	1	1.5
	Graduate Students	6.2	2	3
	Library Employees	0.7	2	3
	Undergraduate Students	81.2	61	92.4
	University Staff	5.1	0	0
Total		100	66	100

Table AIII
Quantitative summary – keywords by discipline

	User group	User group % of pop	No. of references	% of total references
	Business	20.3	15	22.7
	Communications	5.2	3	4.5
	Computer science	3.5	5	7.6
	Education	8.7	4	6.1
	General studies	0.2	0	0.0
	Health sciences	7.4	1	1.5
	Humanities	6.4	5	7.6
	Nursing	7.6	5	7.6
	Other	10.6	1	1.5
	Performing/Fine arts	4.6	3	4.5
	Science/Math	10	12	18.2
	Social science/Psych	14.2	10	15.2
	Undecided	1.4	2	3.0
Total		100	66	100

Section 2: qualitative summary (partial)

LibQUAL respondents referred to OwlSpace (or its synonyms) a total of 73 times. The response was very positive. The word "love" was used on 15 occasions to indicate either feelings about OwlSpace, desire to have additional spaces *like* OwlSpace (Ex- "I'd *love* more areas on campus like OWL Space" [#2]) or to describe the study rooms in OwlSpace. Other adjectives used include: "great" (#4, 10, 13, 16, 19, 20, 26, 51, 55, 57), "enjoy" (#40, 50, 59), "nice" (#18), "inspired" (#27) and "favorite" (#8). Of all, 14 respondents highlight the value of OwlSpace for group study (#8, 15, 16, 22, 23, 31, 37, 44, 52, 56, 57, 58, 63, 65). Several respondents also placed a value on an "open" space (#8, 22, 27, 45).

Several issues were noticed, the primary one being that the space is not large enough or is generally insufficient. The theme takes multiple phrasings, including "bigger" (#8), "expand" (#15, 61), "isn't enough seating" (#17), "addition of booths" (#20), "more booths" (#55), "not as big as I thought it would be" (#22), "larger" (#32), "not enough space/seating" (#36) and "increase the size of OwlSpace" (#37). At least two students seemed to detect that different spaces were suited for different purposes: "Love the different spaces that this library offers to study in. A quiet third floor and a group study basement" (#52) and "The bottom floor area is good for group studying, but not good for individual studying because there are few desks and it is often very noisy" (#44). Other comments suggestive of inadequacy describe the space as "crowded" (#2), "full" (#15), "every time I come with a group to the basement or third floor study rooms with a group, most of the rooms are occupied by one person" (#23) and "too packed" (#63). Finally, the word "more" appears 14 times in reference to OwlSpace (usually an insufficiency): "more areas on campus like OWL Space" (#2), "more vending machine options" (#5), "more power stations" (#7), "more lounge areas similar to owl expres" (#9), "more private rooms" (#14), "more group study rooms" (#31), "more study rooms with whiteboards" (#39), "more places like that on all floors of the library" (#43), "more rooms" (#45), "more space" (#46), "more room" (#49, 60, 62), "more booths" (#55) and "more spaces like it across campus" (#51).

Section 3: Comments in context (partial)

Table AIV
Selection of respondent comments in context

No.	User group	Discipline	Age	Sex	Comment
11	Undergraduate: First year	Social Sciences/Psychology	18-22	Female	I was very surprised at all of the equipment the library entails. I am constantly in Owl Space doing homework and am very pleased with the hours the library offers
12	Undergraduate: First year	Science/Math	18-22	Female	I absolutely love Owl Space. I have not had to use any other services
13	Undergraduate: First year	Science/Math	18-22	Female	I always have good experiences in the library. I especially love the owl space in the basement–it is a great place to study where I can stay focused in an environment without the dusty books. . . . .
14	Undergraduate: First year	Business	18-22	Male	I would love it if more private rooms were added to the Owl Space

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