Protocols and Priorities, Comparing Radford University Users' Priorities Using LibQUAL+® Long and Triads Survey Data: A Preliminary Study

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Purpose

By comparing the data from four previous LibQUAL+® (Long) surveys to that from the LibQUAL+® Triads (Triads) surveys, this study will try to discover if

- The two protocols produce significantly different library service and resource priorities for the primary Radford University (RU) library users.
- The Triads instrument increases user response rate and representativeness.
- The Triads survey provides an improved user experience as evidenced by a higher number of completions and fewer negative comments about the instrument/protocol.

Methods

Definitions and Assumptions

Long = LibQUAL+® Long protocol. Mean Perceived ratings and comment data collected during the 2005, 2005, 2008, and 2009 surveys of the RU undergraduates, graduate students and faculty.

Triads = LibQUAL+® Triads protocol. Ratings and comment data is from the 2012 survey of the RU undergraduates, graduate students and faculty.

Deficiency tags = Comments that indicated a deficiency in a resource or service were tagged with a "-", e.g., IC-8- Journals -.

Significant difference = results that equal or exceed a predetermined criteria or threshold.

- For ratings comparisons must meet both the following criteria:
  o Effect size (Cohen's d) $\geq$ 0.5 (i.e., ½ standard deviation).
  o Statistical significance (H_0 test): H_0 is rejected and H_A accepted.
    ▪ H_0 (Null Hypothesis) = There no difference between the Triads and Long ratings; the protocols produce similar results.
    ▪ H_A (Alternate Hypothesis) = There is a difference between the Triads and Long ratings; the two protocols produce different results.
- Significant difference for all other Triad to Long comparisons $\geq$ 15%.
  o For the purposes of this study, 15% is assumed to be an approximate equivalence in magnitude to a Cohen's d of 0.5.

Library Service and Resource Priorities

- Determined the top six priorities for each user group (Undergraduates, Graduate Students and Faculty) using mean Long Superiority Gap for ratings and largest frequency of deficiency tags from the comment data.
- Matched each Triad Core item to its Long equivalent (see table 1).
- Looked for overlap between any of the six Triad Core items and six Long priority items.
- Analyzed the Overlap Items to see if there was a significant difference between the rating and deficiency tag results produced by the Triads and Long protocols.

Table 1. Matched Triads Core and Long survey items.

Triads Item	Long Item	Item Description
Core A	IC-4	The electronic information resources I need.
Core B	AS-6	Employees who deal with others in a caring fashion.
Core C	LP-1	Library space that inspires study and reflection.
Core D	AS-5	Employees who have the knowledge to answer user questions.
Core E	IC-2	A library Web site enabling me to locate information on my own.
Core F	IC-8	Print and/or electronic journal collections I require for my work.

User Response Rate and Representativeness

- User group response rate = n respondents / total respondent population N
- User group representativeness = % respondents / % total respondent population

User Experience: Survey Completions and Deficiency Tags

- Survey completions difference = N Triads surveys completed / mean N Long surveys completed
- User group survey experience deficiency tag difference = N Triads deficiency tags − N Long deficiency tags

Findings

Library Service and Resource Priorities

Item Overlap Analysis. The overlap varied across user groups. Overall a mean of only 2.3 (38.8%) of the ratings, and 1 (16.7%) of the deficiency tags overlapped. This indicates that the two protocols will produce different user priorities 61.2% to 83.3% of the time.

Table 2. Overlap between the six Triad Core items and the top six Long ratings and deficiency tag priorities.

User Group	Ratings — Overlap items	Ratings — N (%)	Deficiency Tags — Overlap items	Deficiency Tags — N (%)
Under-graduates	Core C & LP-1 Core F & IC-8	2 (33.3%)	None	0 (0.0%)
Graduate Students	Core A & IC-4 Core F & IC-8	2 (33.3%)	Core F & IC-8	1 (16.7%)
Faculty	Core A & IC-4 Core E & IC-2 Core F & IC-8	3 (50.0%)	Core A & IC-4 Core F & IC-8	2 (33.3%)
All (Mean)		2.3 (38.8%)		1 (16.7%)

Ratings analysis. Comparisons between the common Triad and Long overlap items produced a significant difference for all the user groups. This indicates that the overlap items will produce different, non-comparable results.

Table 3. Rating comparisons for Triad and Long overlap items;. Significant differences (Cohen's $d \geq$ 0.5 and Reject H_0) are in **bold**.

User group	Overlap items	Cohen's d	$-.95CI^a$	$+.95CI$	H_0 Test
Under-graduates	Core C & LP-1	**-0.54**	-0.57	-0.51	**Reject H_0**
	Core F & IC-8	**-0.69**	-0.71	-0.66	**Reject H_0**
Grad Students	Core A & IC-4	**-0.89**	-0.94	-0.84	**Reject H_0**
	Core F & IC-8	**-0.76**	-0.82	-0.69	**Reject H_0**
Faculty	Core A & IC-4	**-1.31**	-1.37	-1.25	**Reject H_0**
	Core E & IC-2	**-1.77**	-1.84	-1.71	**Reject H_0**
	Core F & IC-8	**-0.57**	-0.64	-0.49	**Reject H_0**
All (Mean)	All items	**-0.93**	-0.99	-0.88	**Reject H_0**

Note. [a] $+.95CI$ = 95% Confidence Interval.

Deficiency Tag Analysis. Comparisons between the frequency of deficiency tags for the Triad and Long overlap items did not uncover any significant differences. This is contradicts the ratings analysis results above, indicating that the overlaps items will produce similar, comparable results.

Table 4. Deficiency tag comparisons for Triad and Long overlap items. Significant differences (> 15%) are in **bold**.

User Group	Overlap items	Triads Tags — N	Triads Tags — %	Long Tags — N	Long Tags — %	Difference — N	Difference — %
Under-graduates	None	0	0.0%	0	0.0%	0	0.0%
Grad Students	Core F & IC-8	3	4.2%	14	7.3%	-11	-3.1%
Faculty	Core A & IC-4	5	6.6%	8	5.6%	-3	1.0%
	Core F & IC-8	4	5.3%	5	3.5%	-1	1.8%
All (Total)	All tags	12	16.1%	27	16.4%	-15	0.3%

User Response Rate and Representativeness

There are some differences between the protocols, but nothing significant. The ongoing decline in response rates since 2005 is masked by the mean Long values used in table 5 below.

Table 5. Comparison of user response rates and representativeness . Significant differences ($\geq$ 15%) are in **bold**.

User Group	Response Rate — Triads	Response Rate — Long	Response Rate — Difference	Representativeness — Triads	Representativeness — Long	Representativeness — Difference
Under-graduates	6.2%	12.4%	-6.2%	-8.6%	-5.8%	-2.8%
Grad Students	8.4%	19.6%	-11.2%	2.2%	5.0%	-2.7%
Faculty	11.9%	15.4%	3.4%	6.3%	0.8%	5.5%
All (Mean)	8.8%	15.8%	-7.0%	-0.1%	0.0%	-0.1%

User Experience: Survey Completions and Deficiency Tags

Some differences between the protocols, but only the difference between the numbers of valid surveys completed is significant. Otherwise, both protocols will produce a similar degree of user satisfaction.

Table 6. Comparison of survey completion rates and survey experience deficiency tags. Significant differences ($\geq$ 15%) are in **bold**.

Survey Completions[a]	Triads (N)	Long (N)	Difference N
Valid Surveys	578	710.5	**-132.5 (-18.6%)**
Completed Surveys	705	749.0	-44.0 (-5.9%)
Deficiency Tags	N (% Total)	N (% Total)	Difference N (%)
Undergraduates	4 (1.4%)	7 (0.4%)	-3 (1.0%)
Grad Students	1 (1.4%)	4 (0.9%)	-3 (0.5%)
Faculty	6 (7.9%)	1 (0.3%)	5 (7.6%)
All (Total)	11 (10.7%)	12 (1.6%)	-1 (9.1%)

Note. [a] Data not available by user group, only for all user groups.

Conclusions

The two protocols produce significantly different library service and resource priorities: Yes (and No).

- Yes they will, due to the weak priorities overlap (see table 2) and the significant differences between the ratings (see table 3).
- No, the deficiency tags will not (see table 4).
- Only an issue if data continuity/trend analysis is important. If not, using Triads is an opportunity to capture new insights into your user groups' priorities.

The Triads instrument increases user response rate and representativeness: No.

- No, there is no significant difference produced by the two protocols (see table 5).
- Declining response rates seem to be independent of the protocols. They have been declining since our peak response rate in 2005. More study will be needed to confirm this though.

The Triads survey provides an improved user experience: No.

- No improvement in the user experience; with a significant decline in completed valid surveys (see table 6).
- Significant difference between the completion rates may be due to the novelty of the Triads protocol. More study is needed to confirm this though.

Questions? Comments?
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