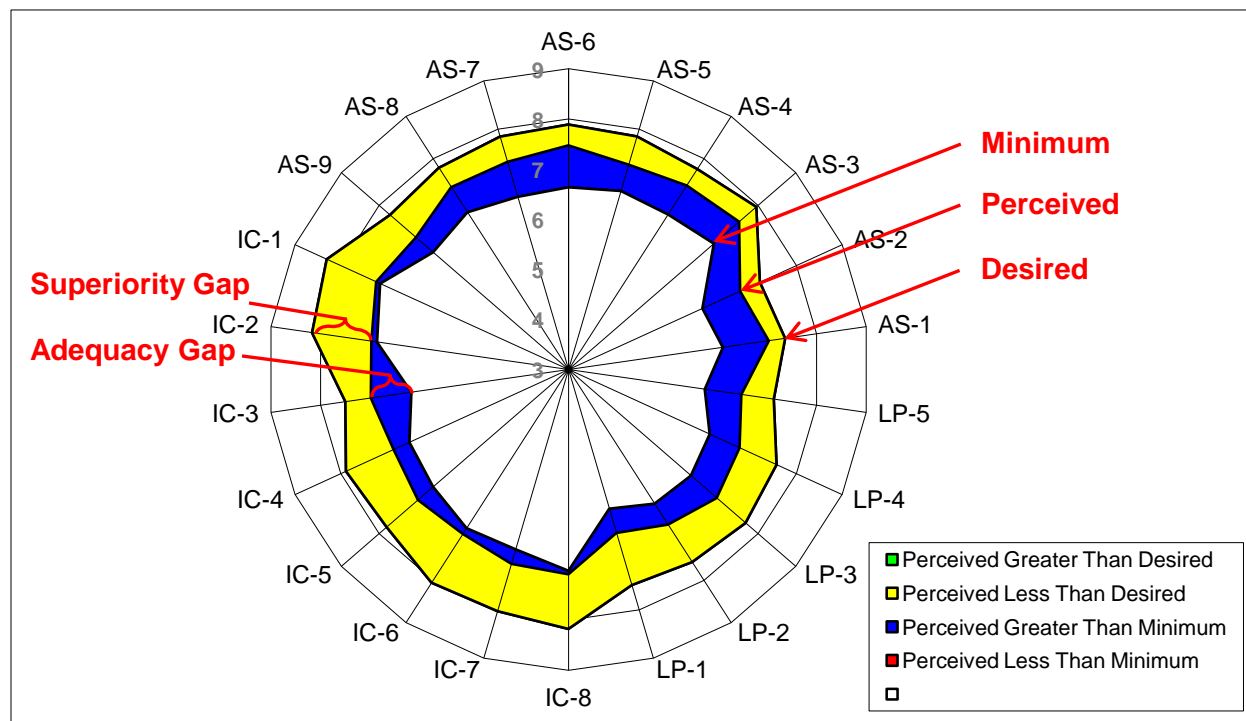


LibQUAL+ 2013 Handout

Understanding LibQUAL+ Radar Charts

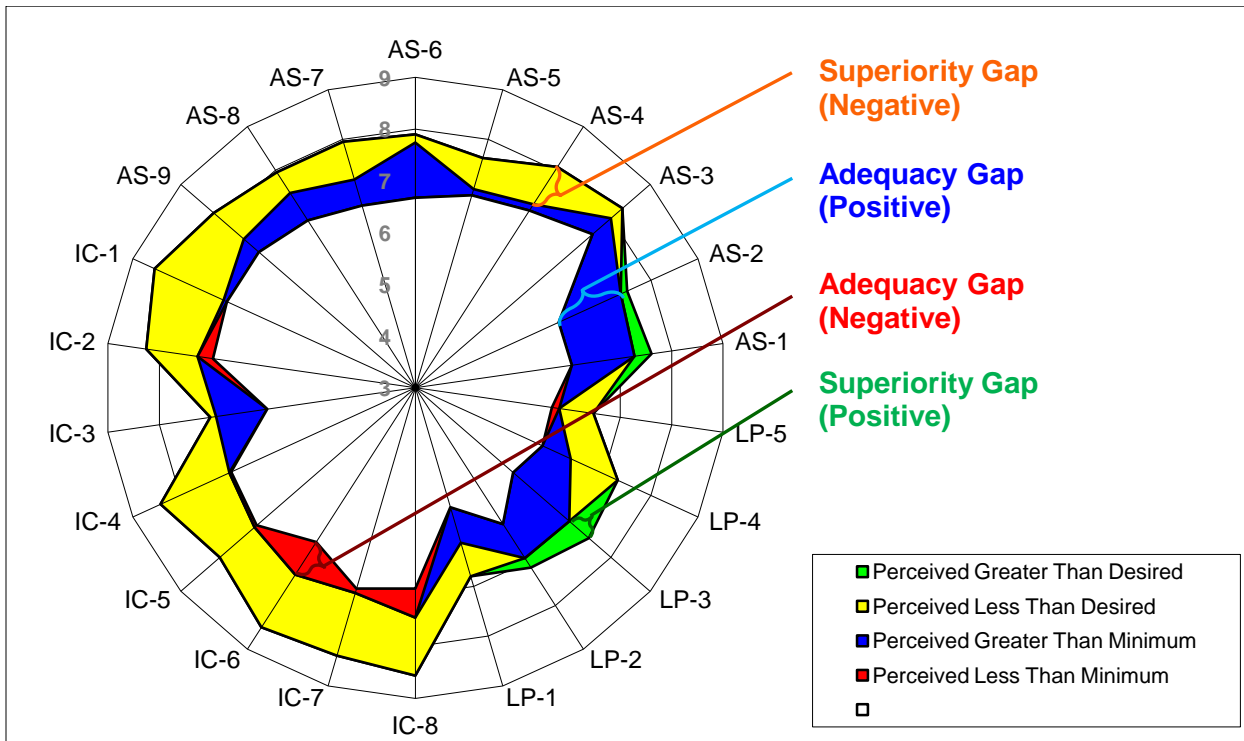
- Radar charts are an effective way to show strengths and weaknesses (graphically) along with the symmetry or uniformity of the data
- Users' minimum, desired, and perceived levels of service quality are plotted on each axis which represents a different survey question scaled from 1 to 9, with 9 being the most favourable (see Figure 4 for survey questions)
- Variations in the data are shown by distance from the centre of the chart
 - Points close to the centre indicate a low value
 - Points near the edge indicate a high value
- The resulting "gaps" between the three levels are shaded in blue, yellow, green, and red
- The distance between minimum expectations and perceived levels of service quality = the adequacy gap
- The distance between desired and perceived levels of service quality = the superiority gap

Figure 1: Radar chart illustrating minimum, perceived and desired mean scores, superiority and adequacy gaps



- A radar chart shaded blue and yellow indicates users' perceptions of service fall within the "zone of tolerance" (i.e. perceived score is between minimum and desired score)
- A radar chart shaded red and green indicates users' perceptions fall outside the zone of tolerance (i.e. perceived score is outside the range of minimum to desired score)
 - Negative Superiority Gap (yellow): Perceived level of service is lower than the desired level of service (in the zone of tolerance)
 - Positive Adequacy Gap (blue): Perceived level of service is higher than the minimum level of service (in the zone of tolerance)
 - Negative Adequacy Gap (red): Perceived level of service is below the minimum level of service (not meeting minimum expectations)
 - Positive Superiority Gap (green): Perceived level of service is higher than the desired level of service (exceeding desired expectations)

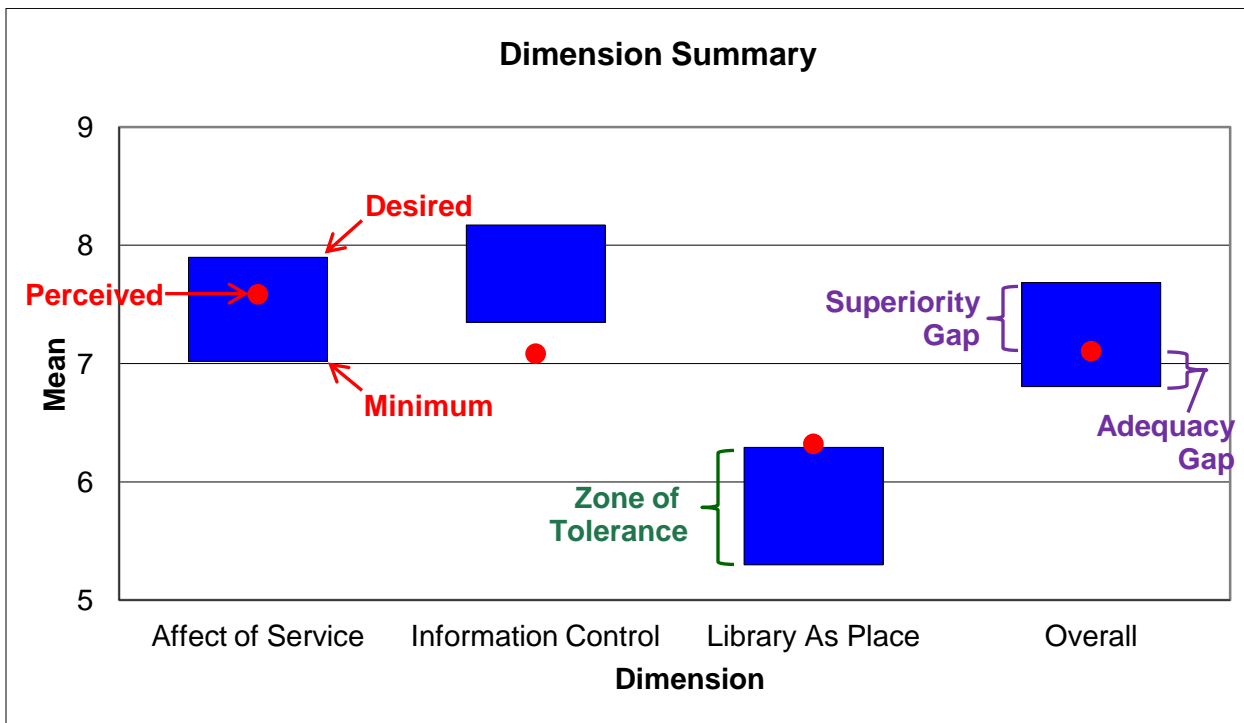
Figure 2: Radar chart illustrating positive and negative superiority and adequacy gaps



Understanding LibQUAL+ Thermometer Charts

- A thermometer chart pinpoints the perceived score in relation to an overall zone of tolerance (range of minimum to desired score) for an item or dimension
 - The exterior bars represent the range of minimum to desired mean scores for each item/dimension
 - The red dots represent the perceived mean scores for each item/dimension of library service quality

Figure 3: Thermometer chart illustrating minimum, perceived and desired mean scores, superiority and adequacy gaps, and zone of tolerance



Understanding LibQUAL+ Tables

What do users really want?

- Desired mean (green rectangles): Highest DESIRED mean scores

What scores are best? What scores are worst?

Perceived Mean

- Best (orange stars) = highest PERCEIVED mean scores
- Worst (red circles) = lowest PERCEIVED mean scores
- Simplest analysis but does not take advantage of the “gap analysis” opportunity (distance between perceived scores and minimum or desired mean scores)

Adequacy Mean (uses the “zone of tolerance” framework)

- Service adequacy is an indicator of the extent to which you are meeting the minimum expectations of your users
 - Best (orange stars) = highest ADEQUACY mean scores; highest positive number
 - Worst (red circles) = lowest ADEQUACY mean scores; may be a negative number (closest to or below minimum needs)
- Higher scores are more favourable (adequacy gap score of +1.2 is better than an adequacy gap score of +1.0)

Superiority Mean (uses the “zone of tolerance” framework)

- Service superiority is an indicator of the extent to which you are exceeding the desired expectations of your users
 - Best (orange stars) = lowest SUPERIORITY mean scores; lowest negative number
 - Worst (red circles) = highest SUPERIORITY mean scores; highest negative number (furthest from meeting desired)
- Higher scores are more favourable (superiority gap score of -0.5 is better than a superiority gap score of -1.0)

Figure 4: Table illustrating highest desired scores and best/worst scores using perceived, adequacy and superiority means

ID	Question Text	Minimum Mean	Desired Mean	Perceived Mean	Adequacy Mean	Superiority Mean	n
Affect of Service							
AS-1	Employees who instill confidence in users	6.11	7.37	7.04	★.93	★-.33	462
AS-2	Giving users individual attention	5.94	7.20	6.77	★.83	★-.43	419
AS-3	Employees who are consistently courteous	6.84	7.96	★7.51	.67	★-.45	434
AS-4	Readiness to respond to users' questions	6.68	7.76	★7.37	.69	★-.39	458
AS-5	Employees who have the knowledge to answer user questions	6.71	7.85	★7.26	.55	★-.59	477
AS-6	Employees who deal with users in a caring fashion	6.64	7.89	★7.47	★.84	★-.42	1855
AS-7	Employees who understand the needs of their users	6.59	7.84	7.32	.73	★-.52	418
AS-8	Willingness to help users	6.73	7.78	7.33	.60	★-.46	431
AS-9	Dependability in handling users' service problems	6.57	7.71	7.03	.45	★-.68	411
Information Control							
IC-1	Making electronic resources accessible from my home or office	7.13	8.30	7.22	○.09	○-1.08	623
IC-2	A library Web site enabling me to locate information on my own	6.86	8.17	6.97	○.12	○-1.19	529
IC-3	The printed library materials I need for my work	6.16	7.49	6.98	.82	★-.51	449
IC-4	The electronic information resources I need	6.49	7.88	6.83	.35	★-1.04	1925
IC-5	Modern equipment that lets me easily access needed informatio	6.57	7.80	6.97	.40	★-.83	517
IC-6	Easy-to-use access tools that allow me to find things on my own	6.76	8.05	6.90	.14	○-1.16	540
IC-7	Making information easily accessible for independent use	6.74	8.02	7.04	.30	★-.98	523
IC-8	Print and/or electronic journal collections I require for my work	7.01	8.17	7.08	○.07	○-1.09	592
Library as Place							
LP-1	Library space that inspires study and learning	5.89	7.48	○6.40	.50	★-1.08	1837
LP-2	Quiet space for individual activities	6.18	7.56	○6.67	.50	★-.89	467
LP-3	A comfortable and inviting location	6.23	7.67	6.91	.68	★-.76	455
LP-4	A getaway for study, learning, or research	6.10	7.56	6.75	.66	★-.81	459
LP-5	Community space for group learning and group study	5.75	7.14	○6.49	.74	★-.65	412

Understanding LibQUAL+ Actionable Scatterplots

Adequacy and Superiority Mean Scatterplots

- Actionable scatterplots identify the top strengths, weaknesses and actionable items
- Top left quadrant (blue circle): Most desired but least adequate/superior items (highest weakness)
- Top right quadrant (purple happy face): Most desired and most adequate/superior items (highest strength)
- Focus on top left quadrant items (blue circle) until they become top right quadrant items (purple happy face)

Figure 5: Adequacy mean scatterplot identifying actionable items

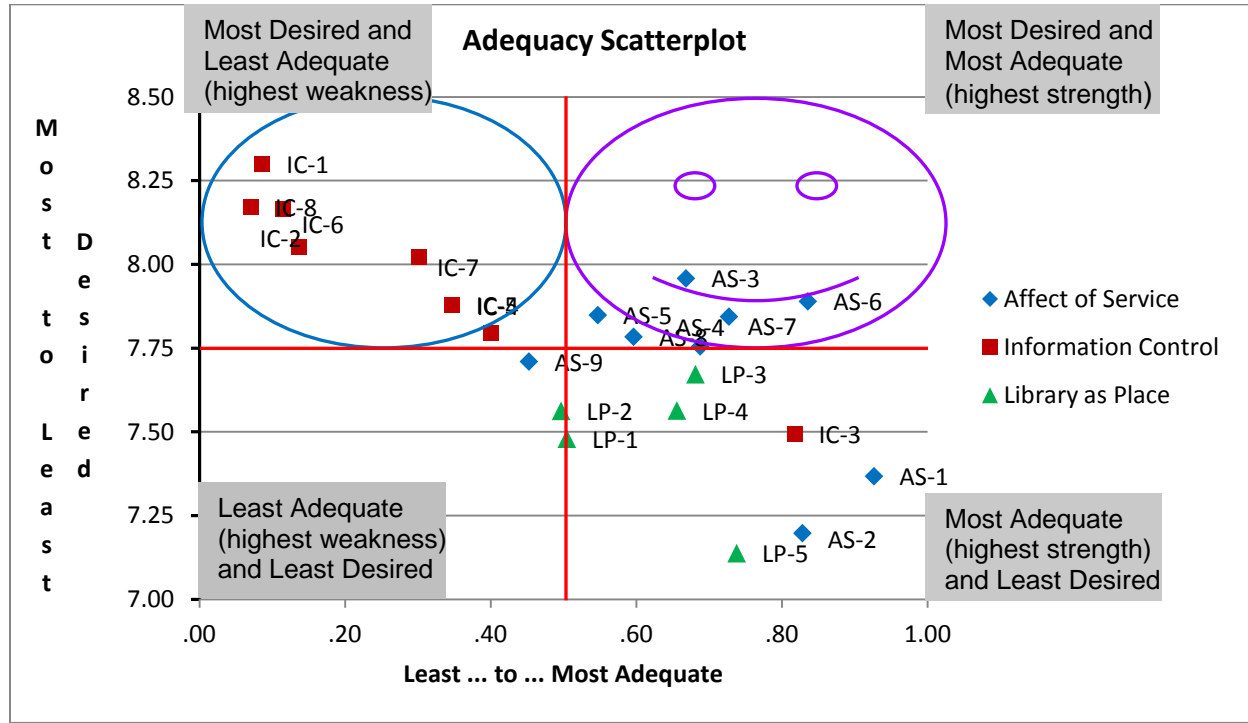


Figure 6: Superiority mean scatterplot identifying actionable items

