

# LibQUAL+(R)<sup>®</sup> and the Information Commons Initiative at Buffalo State College: 2003 to 2009

Eugene J. Harvey, MLS, MSW  
Maureen Lindstrom, MLS

Presented at the  
2010 Library Assessment Conference  
Baltimore, MD  
October 25, 2010

# Today's Topics

- 1) Presentation & Research Goals
- 2) Brief Overview of Buffalo State College
- 3) The Development of the Information Commons at Buffalo State College
- 4) Evaluation Methodology
  - Brief Overview of the LibQUAL+(R) Survey, including its dimensions
    - A reminder of what LibQUAL+(R) “measures...”
- 5) Results of Data Analysis
- 6) Conclusion & Questions

# Overview

- The purposes of this practice-oriented research are simple:
  - 1) to provide other academic libraries with a documentation of our successes and challenges in developing an Information Commons;
  - 2) to illustrate changes in users' perceptions of library services between 2003, 2006, and 2009 as a result of developing an Information Commons; and
  - 3) to contribute to the bodies of practice-based library assessment research and service evaluation, particularly in relation to Information Commons case studies and LibQUAL+(R) research.

# Buffalo State College

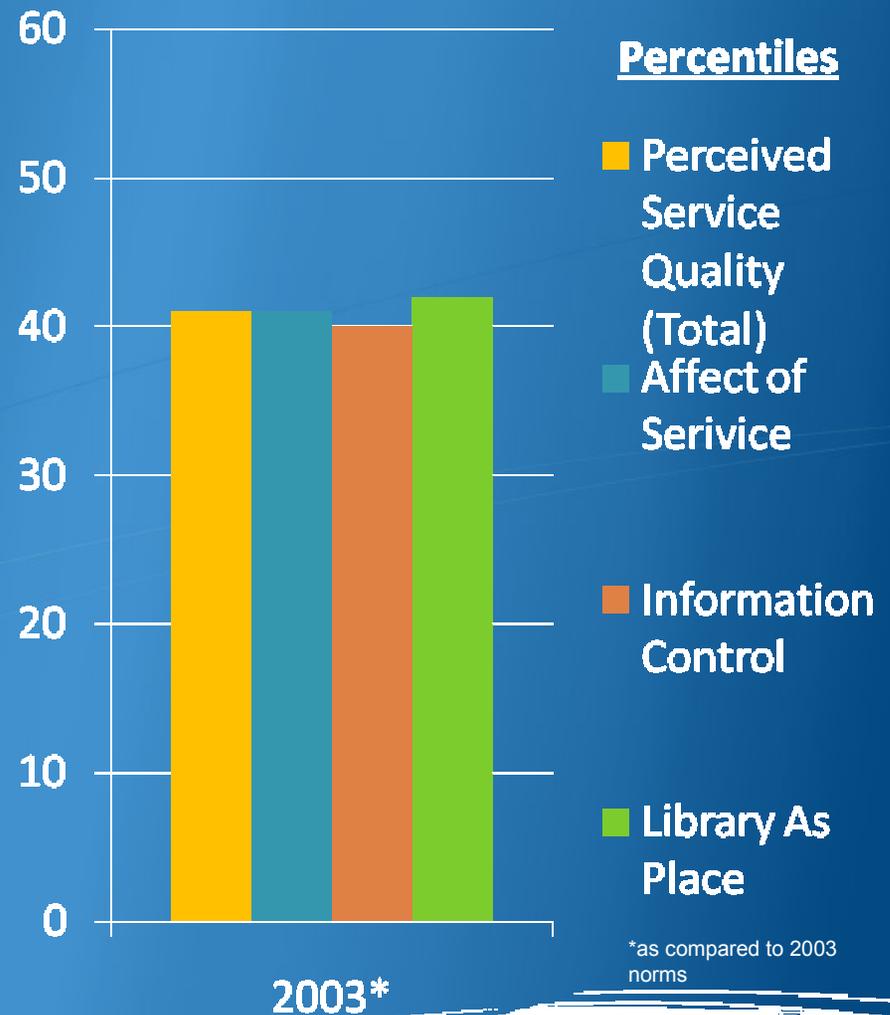
- Carnegie Master's-L level institution
- Largest 4-year urban college in the State University of New York (SUNY) system
- Enrollment - Fall '09 - 11,714 students
  - 9822 undergraduate and 1892 graduate
- Five schools: School of Arts and Humanities, School of Education, School of Natural and Social Sciences, School of the Professions, and the Graduate School
  - Top 5 Majors: Business, Elementary Education & Reading, Technology, Criminal Justice and History
  - 162 undergraduate programs with 11 honors options
  - 60 graduate programs, including 17 post-baccalaureate teacher certification programs

# E.H. Butler Library

- Medium-sized academic library
  - Sole library for the campus
- Houses more than 675,000 printed books, over 174,000 electronic books, and access to full-text articles from over 57,000 unique print and electronic journals
- Open 110 hours each week during regular semesters
  - Two extended-hours facilities, StudyQuad and QuietQuad, which are open and staffed 24/7 during regular semesters
- Houses the largest open computer lab on campus
  - 200+ new computers -- provide full access to library resources, the Web, the Microsoft Office Suite, and various specialized software applications. Access to the wireless network and secure networked printing is also available in the library
- Café and several lounge areas

# 2003: The Perfect (Bad-News) Storm

- 2003 - Butler Library prepares to engage in its first LibQUAL+(R) assessment initiative
- Results: compared against the instrument's national norms, Butler Library fell short of average in all 3 service areas (i.e. Affect of Service, Information Control, and Library as Place) by up to 10 percentile points
  - As compared to the 50<sup>th</sup> percentile (average)
- Using these results as a guiding framework for service restructuring and departmental reorganization, Butler Library implemented a long-term plan to develop the Information Commons in an attempt to improve patrons' perceptions of library service.



# 2003 cont'd...

- As was the case in hundreds of academic libraries across the country, 2003 was the year of an unprecedented decrease in gate counts, reference desk statistics, and library material circulation.
- In Butler Library – also the year of an unprecedented increase in technology-related questions and technology-related complaints: usernames did not work, e-mail accounts needed to be activated, passwords needed to be reset, printers were jammed, work was not saved, discs were lost, and software could not be loaded.
  - Students with these types of problems had such a confusing time resolving them that the process was given a name – “The BuffState Shuffle.”
- Users’ frustration levels were high on all fronts
- Staff morale seemed to be at an all-time low
- Library administrators scrambled to justify filling vacant lines in a department that appeared to be in decline.
  - As Scott Carlson noted in his 2001 article in the *Chronicle of Higher Education*, “Gate counts and circulation of traditional materials are falling at many college libraries across the country, as students find new study spaces in dorm rooms or apartments, coffee shops, or nearby bookstores.”
- New technologies, increased automation, and of course the Web improved access to information and empowered users. **It also contributed to users staying away.**

# The Beginning of a Plan...

- The road to revitalization of the library required a new way of defining the library's purpose and its responsibility to provide support to the greater academic community.
- The Information Commons model/concept described and defined by Donald Beagle provided an excellent framework.
  - Of particular interest were Beagle's new descriptions for use of library space and his redefinitions of library services.
    - Organizational realignment from print to virtual
    - Redefine the library's use of physical space
    - Redefine "library services"
    - Emphasize strategic alignment with the campus

Beagle, Donald. (1999). Conceptualizing an Information Commons, *Journal of Academic Librarianship*, 25 (2), 82-89.

Beagle, D.R., Bailey, D.R., & Tierney, B. (2006). *The Information Commons Handbook*. New York: Neal-Schuman.
- Butler Library's front line staff could clearly articulate many instances of poor or confusing service on campus.
  - If we could consolidate the provision of essential services within the library itself, students would be better served by a "one-stop shop." The plan was for that one-stop shop to become an ***Information Commons***

# Implementing the I.C. Model

- Use of an outside facilitator
  - The entire library staff needed to come together around an understanding and vision for the creation of an Information Commons. An outside facilitator was hired and helped us aggregate input to create a newly envisioned mission statement of the Information Commons:
    - *“The Information Commons provides quality service, expert help, and seamless access to information in a supportive high-tech environment that empowers the Buffalo State community to access, evaluate, and ethically use information to promote academic excellence.”*
  - During times of change staff can become nervous or concerned about their future role in the organization. In our session, the facilitator did an excellent job of rallying the staff around a common goal. **In retrospect, this step was by far the most worthwhile.**
- The Computing Help Desk moves into the library
  - Allowed for support to be available at the point of need
  - Help Desk staff instantly became supportive partners, fully participating in technology and customer service planning within the Information Commons

# Implementing cont'd

- Library reorganization
  - Physical units in the library, such as microforms, media services, interlibrary loan, were re-organized around functional service areas.
  - All clerical staff were cross-trained in all functional service areas.
  - ...move of the reference desk from the back reference room to the library lobby. Librarians initially disagreed with this move, indicating the potential of compromised privacy and that the area was too noisy and too visible. However, within a week, reference desk statistics in all categories increased.
- Financial investment
  - an “Information Commons” sign for \$500, our only financial investment in the creation of this new area
- Managing expectations
  - With little direct fiscal expense, the concept of the Information Commons seemed to be a risk worth taking.
  - Implementation, in a sense, could even be considered a “trial” phase, if necessary – enabling the library to try something new, yet leaving open the option of returning to the previous structure of services.
  - Even with some resistance and dissension, expectations remained cautiously optimistic. However, all agreed that increased visibility and aligning with user expectations was a positive step in the right direction.

# Post-Implementation Evaluation: Subsequent LibQUAL+® Data Points

- In 2006 and 2009, Butler Library administered a second and third collection points of LibQUAL+® data as a means of assessing the impact of the Information Commons model on users' perceptions of library service quality. These sets of results were compared to 2003 data.



# Methodology

- Non-experimental, practice-oriented research
  - Threats to validity associated with such research
    - \*History\*, Participant Recruitment, Instrumentation (changes to LibQUAL+<sup>®</sup> instrument between '03 and '06)
- Utilized the well-established LibQUAL+(R) survey instrument as the primary means of collecting baseline data in 2003 and for two subsequent three-year data points (2006 & 2009)
  - 2006 data point - Hypothetically, would highlight positive changes in users' perceptions of overall service quality
  - 2009 data point - would indicate whether or not users' satisfaction with the development of the Information Commons could be sustained or if it simply was the result of a dramatic short-term effect ("a marketing fad")

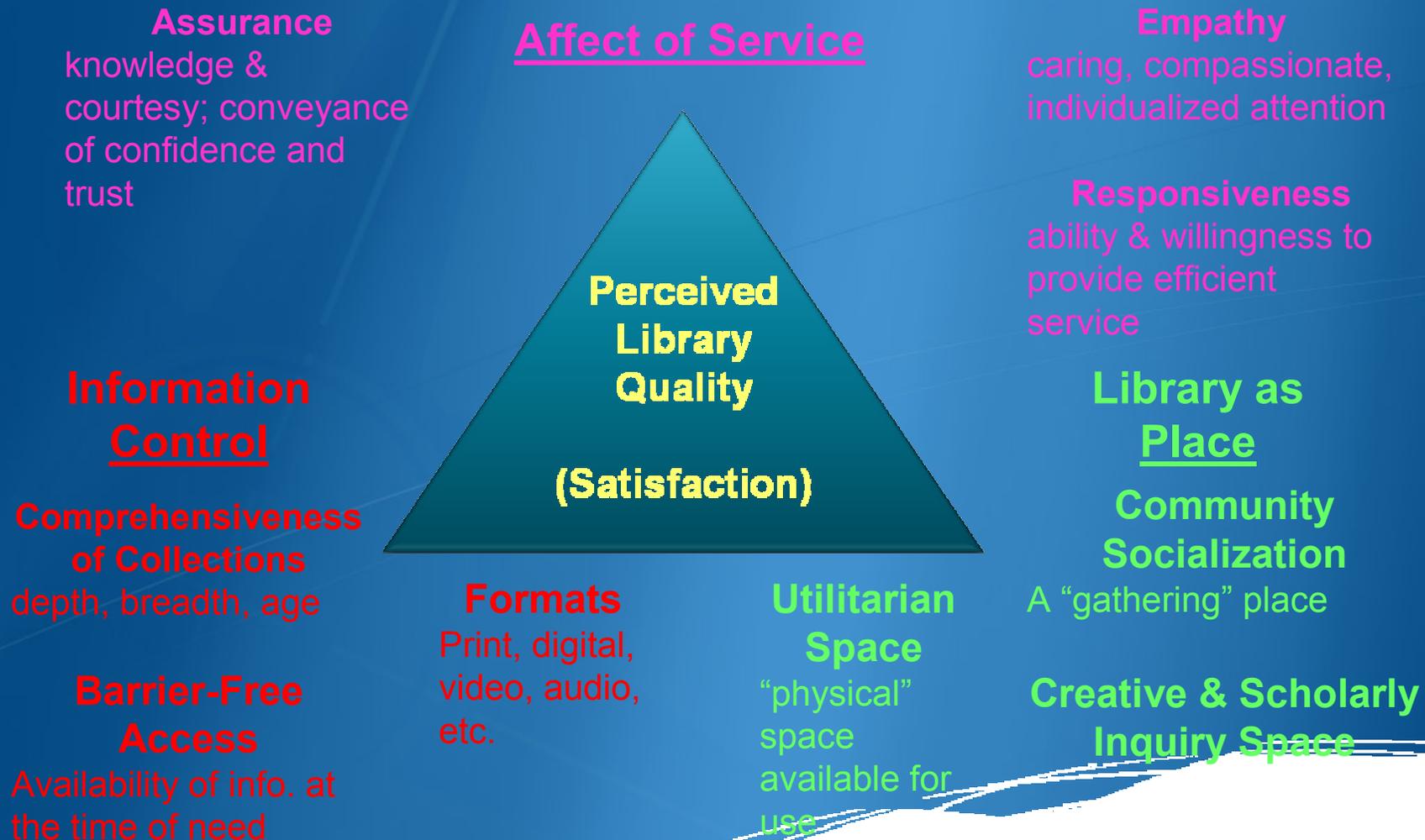
# Methodology cont'd

- Participants: Cross-sectional samples over three 3-year data points
  - Despite relatively low response rate, samples were reflective of campus demographics, esp. academic major, gender, and student status (undergrad. Vs. grad.)
    - Demographics were not of primary importance in this research, with the exception of undergrads. and grads.
  - **Recruitment** → three primary channels: **direct outreach** (reference desk interactions; classrooms; student & faculty contacts), **marketing** (campus newspapers; announcements on website; bookmarks; departmental and campus emails), and **incentive** (the chance to win an iPod).
  - Volunteers were asked to visit the library's LibQUAL+(R) survey page to complete the survey.
  - Only fully completed surveys were used for data analysis; imputation of missing data was not utilized.
  - Library staff members were excluded from all analyses due to the potential for biased results (i.e. vested interests). Faculty were included in analyses related to changes in perceived library service quality over the development of the Information Commons, but they were excluded from other analyses relating to undergraduate and graduate student groups.

# What is the LibQUAL+(R) Survey?

- A ***total market survey*** designed to measure dimensions of perceived library quality
  - Total Market Survey – “(inter)national” survey that permits comparisons across institutions (i.e. norms)
  - Its dimensions and elements are common across most academic libraries
  - Provides general feedback
    - Drawback: cannot provide specific, in-depth information about local library issues → ex. problematic parts of library website; specific collection development areas; feedback about information literacy sessions; circulation services.
    - Technically, LibQUAL+(R) measures perceptions of *library* service quality, not Information Commons service quality, yet Beagle and other scholars tend to accept the administration of LibQUAL+(R) for such a purpose.

- A total market survey designed to measure **dimensions of** perceived **library quality**



# Analyses

- Research Interest #1: A one-way, between-subjects ANOVA was conducted to compare the impact of the development of an Information Commons model of service provision on users' perceptions of library service quality between three data collection points (2003, 2006, and 2009).
  - The Levene Test of Homogeneity of Variances indicated equal variance and, thus, supports the usage of ANOVA ( $F [2, 1598] = 2.62, p > .05$ ).
  - Results of the one-way ANOVA revealed significant differences between data collection points ( $F [2, 1598] = 7.07, p = .001$ ).
  - Post-hoc comparisons using Scheffe's test indicated significantly more positive perceptions of library service quality for the 2006 data point ( $M = .32, 95\% \text{ CI } [.09, .55]$ ) and the 2009 data point ( $M = .307, 95\% \text{ CI } [.07, .54]$ ) as compared to the 2003 data point.
  - Comparisons between the 2006 and 2009 data points were not statistically significant at  $p < .05$ .

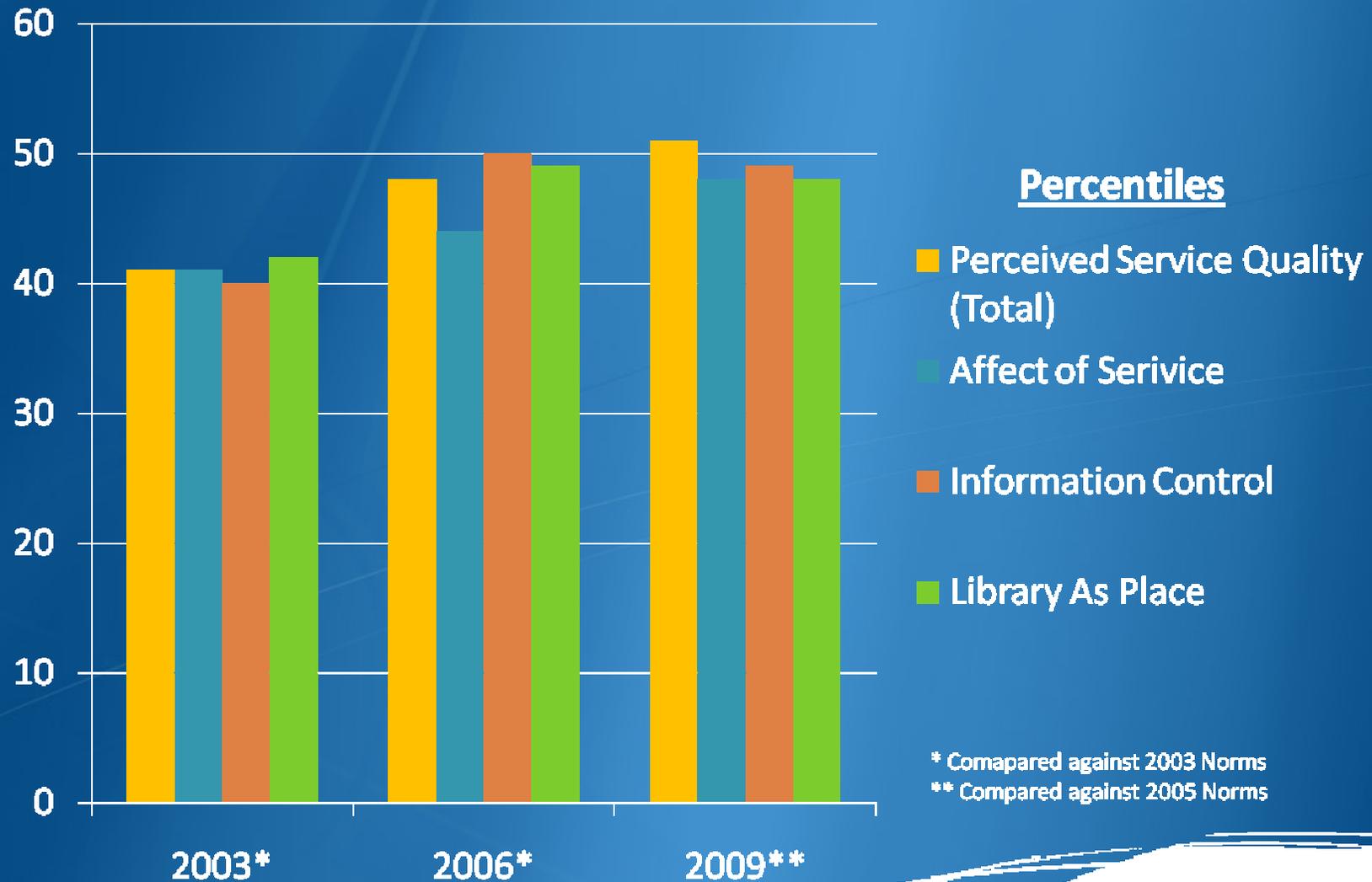
# Analyses cont'd

- Research Interest #2: The impact of the Information Commons separately on undergraduate and graduate student groups' perceptions of service quality was explored also using one-way ANOVAs. (Post-hoc comparisons were not necessary due to having only 2 factorial conditions: undergraduate or graduate student status. Statistically significant differences were between those two groups only.)
  - In 2003, results of one-way ANOVA indicated no significant differences between undergraduate and graduate students and their perceptions of library service quality ( $F [1, 314] = .014, p < .05$ ). The Levene Test of Homogeneity of Variance indicated equal variance and supported the usage of ANOVA ( $F [1, 314] = .724, p > .05$ ).
  - However, in 2006, results of one-way ANOVA indicated that undergraduate students' perceived higher levels of service quality after the development of the Information Commons than graduate students ( $F [1, 475] = 5.024, p = .025$ ). Equal variance was indicated through the Levene Test ( $F [1, 475] = .553, p > .05$ ).
  - This difference was maintained in 2009 as well, as shown through one-way ANOVA ( $F [1, 454] = 4.013, p = .046$ ) (Levene Test:  $F [1, 454] = .163, p > .05$ ).

# Interpretation of Results

- Research Interest #1: As hypothesized, the development of the Information Commons between 2003 and 2006 had a significantly positive impact on its users' overall perceptions of service quality, including in each of LibQUAL+(R)'s three service dimensions.
  - Interestingly, the Information Commons model would seem to fit more into the "Library as Place" dimension of LibQUAL+(R), yet scores in Affect of Service and Information Control also improved significantly. Perhaps the physical, virtual and cultural "repackaging" of services indirectly affected users' perceptions of these two areas, too.

# (Self-)Benchmarking



# Interpretation of Results cont'd

- Research Interest #1 cont'd: Results between 2006 and 2009 were not statistically significant.
  - Perceived service quality did not decrease!
    - Despite the economic downturn and subsequent fiscal “crunching” between 2006 and 2009, users’ satisfaction with service quality did not diminish significantly.
    - The gains resulting from the development of the Information Commons were maintained, which suggests a long-term, sustained impact from developing such a model of service delivery.
    - The Butler Library staff and administration were pleased overall with this result since it was hoped this model would not be a one-time “shot in the arm” or a dramatic fad. Results from 2006-2009 comparisons support sustained, positive gains.

# Interpretation of Results cont'd

- Research Interest #2: (occurred less intentionally)
- Statistical analyses for undergraduate and graduate students revealed no differences in their perceptions of service quality prior to the development of the Information Commons; without disagreement, it was apparent they were both equally dissatisfied with library services in 2003.
- However, for both the 2006 and 2009 data, analyses revealed that the development of the Information Commons had more of a positive impact on undergraduate students' perceptions of service quality than graduate students.
  - To help understand this difference, correlations between all 2009 LibQUAL+(R) survey items and the overall LibQUAL+(R) mean adequacy gap score were computed for both undergraduate and graduate student groups.

# Top Five LibQUAL+(R) Items for Undergraduate & Graduate Students

Service Element	Service Dimension	Pearson <i>r</i> Coefficient
-----------------	-------------------	------------------------------

## *Undergraduate Students*

Employees who are consistently courteous.	Affect of Service	0.756
A comfortable and inviting location.	Library as Place	0.755
Library space that inspires study and learning.	Library as Place	0.739
A getaway for study, learning, or research.	Library as Place	0.724
Employees who have the knowledge to answer user questions.	Affect of Service	0.71

## *Graduate Students*

A library website enabling me to locate information on my own.	Information Control	0.827
Readiness to respond to user questions.	Affect of Service	0.781
A getaway for study, learning, or research.	Library as Place	0.779
Employees who have the knowledge to answer questions.	Affect of Service	0.776
Employees who are consistently courteous.	Affect of Service	0.774
The electronic information resources I need.	Information Control	0.769

# Interpretation of Results cont'd

- These findings sparked much debate among library faculty and staff, and they likely will guide future planning and services for the Information Commons.
  - Graduate students are a very important user group, too, and the planning of services must take into account their unique needs and interests, particularly in relation to their research interests and information requests. These findings would not have been noted if had not been for LibQUAL+(R) data and methods related somewhat to data mining. Certainly this information is of critical importance and will be addressed in future endeavors.

# Conclusion

- Reflections Six Years Later: New initiatives & the “Library as Place” → physical, virtual, cultural
  - new programming
  - new exhibits (e.g. a faculty publications showcase; campus and community art exhibits)
  - workshops (e.g. Google docs; software programs)
  - the implementation of a Digital Commons for scholarly works and publications
  - the creation of a Rooftop Poetry Club (which has received extensive local and national recognition)
  - the library’s Green Initiative
  - a software virtualization project
  - the library blog and newsletter.

# Conclusion

- ...New partners
  - The Information Commons now partners with Student Affairs, Graduate Studies, Orientation, Instructional Resources, College Relations, Events Management, University College, the Registrar and Computing and Technology Services to provide ancillary services to the campus.
- ...Recognition
- ...Benefits for Students

Today every student has access to all the following services in Butler Library:

- ID cards
- Bus Passes
- Meal/Dining/Vending plans and funds
- Computing help, including username look-ups and password resets
- Class registration assistance
- Advisement
- Research paper writing assistance (Writing Help Center)
- Equipment loan
- Specialized software assistance
- Microsoft Office assistance and instruction
- Google Docs assistance and instruction
- Printing assistance
- Library instruction
- And lunch!!

# The End!

- The process of revitalizing E. H. Butler Library through the implementation of an Information Commons has been an immensely rewarding experience for the entire staff.
  - Regained the respect of the campus community
  - Regained an invaluable appreciation for user-driven input and feedback and for ongoing assessment and evaluation, including the well-established, multidimensional LibQUAL+ instrument
  - Most importantly, though, the users of the Information Commons have responded loudly and clearly – they approved of the changes in service structure, and their satisfaction with the Information Commons and its service quality has been sustained into 2009.