Before and After: Planning and Assessment of New Library Spaces and Services

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Introduction and Context

James B. Hunt Jr. Library
Open for business: January 2, 2013
Introduction and Context

• Construction of new library facility on developing campus
• Main constituents –
  • Textiles: branch library, 1100 users
  • Engineering: no dedicated branch library, 8000 non-traditional users
• Before: one main library (D. H. Hill) on historic campus, 4 small branches
• After: two main libraries (D. H. Hill & Hunt), 3 small branches
• Providing spaces we have never supported before (in terms of technology and quantity)
• No appreciable growth in staff
Our History With User Research

- No assessment librarian, no systematic approach to research.
- Usability studies (approx. 10 years)
- Web redesign in 2010, heavy user-research component.
- Beginning with Hunt Library design and planning, more research focused on spaces and services. Still very ad hoc/reactive, led by subject librarians.
User Research 2011-2013

• “Before” studies:
  • Observational
  • Interviews
  • Short, in person survey
  • Long, online survey

• “After” studies:
  • Observational
  • Interviews
  • Long, online survey
Interviews

• For faculty and grad students
• To inform design of the faculty commons and grad commons spaces
• February 2011: 71 interviews (40 fac/31 grad)
• March 2012: 8 interviews (all grad)
• May 2013: 11 interviews (all fac)
Interview Research Questions

• About their research
• About their work lives
• About their work spaces
• About their technology needs
• About their furniture needs
• How they anticipate using Hunt and what would entice them
Interview Methodology

- Script of 22 questions, some additions mid-way
- Approximately 1 hour in length
- Conducted in person (their office or work space)
- Faculty: 1 at a time, Grad: sometimes in groups
- 1 interviewer, 1 note-taker, digital recorder
- Trained subject librarians
- Transcribed recordings
Lessons Learned from the Methodology

• Professional transcription is worthwhile.
• Easing people into the process may be necessary.
• Insist that interviewers read every question.
• Pairing up is a good thing.
Interview Analysis

• Carried out by one librarian
• Transcripts examined for data related to the research questions
• Data grouped by category, quantified, and examined for trends
Interview Results

• Graduate Students
  • Need for varying types of spaces
  • Need to support varying technologies
  • Different needs of different user groups
    • Non-thesis master’s students
    • TAs
    • PhD students
  • Learned about the types of spaces departments provide for grad students
Interview Results

• Faculty
  • Needs not as explicit as with grad students, broke out into:
    • Traditional (teaching support, and collections needs)
    • “A place to impress someone” – strategic partnerships
    • Hidden population – busy younger engineering faculty working towards tenure
Observational

• Students observed:
  • Undergraduate, graduate students

• Before
  • May 2011
  • To inform design of study spaces in Hunt
  • Engineering Buildings public spaces, Textiles Library (1 study)

• After
  • Spring 2013, Fall 2013
  • To assess students’ actual use of spaces
  • Hunt Library Graduate Student Commons (2 studies)
Observational Research Questions

- When are students using the space?
- How are students using the space?
- What types of furniture are students using?
- What types of technology are students using?
- Are the students working alone or with others?
- What size groups?
- Are there any unmet needs?
Observational: May 2011

Finals week

- Photo/observation + brief interviews (8 days)
- Public spaces within Engineering Buildings I, II, and III
- Textiles Library
Observational: Hunt Grad Commons

- **April 2013**
  - 1 week formal observation
  - 8am – 8pm (3 hour intervals)
- **Fall 2013 (on-going)**
  - Every Monday
Observational Methodology

• Design process:
  • Learned from others (e.g., colleagues, literature search)
  • Pre-tested if possible
  • Otherwise: “Just do it!”

• Implementation:
  • Schedule dictated by academic calendar, library events and activities, staff availability
  • Data recorded on paper/printed templates
  • Pre-observation team meeting to review protocols
  • Paired up team members on first observation to establish baseline and ensure consistency
Observational: Analysis

- Microsoft Excel
- Data analyzed for trends related to research questions
Observational Results: Groups

May 2011 (EBs & Textiles Library)

(n=1,222)

45% solo
55% groups

April 2013 Hunt Grad Commons

(n=890)

53% solo
47% groups

May 2011 observation - group sizes

Grad Commons study rooms - group sizes

83.5%
100.00%
80.00%
60.00%
40.00%
20.00%
0.00%

83.0%
100.00%
80.00%
60.00%
40.00%
20.00%
0.00%

Two Three Four Five Six Seven Eight Nine ≥Ten

Two Three Four Five Six Seven

Two Three Four Five Six Seven

Observational Results: Group Rooms

Group Study Rooms - # of occupants

- Two: 69
- One: 45
- Three: 33
- Four: 14
- Five: 4
- Six: 2
- Seven: 1

Frequency (including n=1)

- One: 27%
- Two: 41%
- Three: 20%
- Four: 8%
- Six: 1%
- Other: 4%
- Seven: 1%
Observational Results

• Need for quiet, individual study space
  • 26.8% of group study room uses were by individuals
  • 25.5% of workstation occupants were not using workstations
Observational: Lessons Learned

• Ideal case: plan, pretest, refine, repeat as needed
• If quick turn-around required: just do it
• Seek feedback from interested parties to ensure important data is being captured
• Recognize the limitations of observation
  • Can only infer so much from the data
• Follow-up interviews can help clarify observational data
  1. How do you like this space?
  2. Do you have everything you need?
  3. Is there anything else you want?
Surveys

• Students surveyed
  • Engineering students
  • Engineering and Textiles graduate students

• To examine students’ group study habits and use of library spaces and technology
Surveys

• Before
  • September 2011: short, in-person 1 minute survey,
    • Engineering and Textiles students
    • Follow-up to May 2011 photo observation
  • Fall 2012: Extended online survey
    • On-campus graduate students in Colleges of Engineering and Textiles
    • Follow-up to graduate student interviews
    • “Pre-Hunt” snapshot

• After
  • Fall 2013: Extended online survey
    • On-campus graduate students in Colleges of Engineering and Textiles
    • “Post-Hunt opening” comparison
Survey Research Questions

• How and to what extent are students using physical spaces in the Libraries?
• Which library services are being used?
• Pre-Hunt: Do they anticipate using Hunt Library?
• Are students using the Libraries for individual or group work?
• What types of technologies are students using?
Survey Methodology (Short Survey)

• Design
  • 8 questions drafted in 1 hour by 2 team members
    • Focused on group work and laptop use
    • Tested on one student and tweaked

• Implementation
  • Launched 2 days later
  • Survey available in paper and iPad versions
  • 3 days in 3 different engineering buildings,
    • Surveyed 50 students at each location during midday
    • Additional students surveyed at Textiles Library
Survey Methodology (Online Surveys)

• Design
  • Questions drafted and reviewed with team members
    • Fall 2012: 96 questions
    • Fall 2013: 78 questions
  • Consulted with NCSU University Planning and Analysis (UPA) office
  • Pilot-tested with graduate student library workers

• Implementation
  • Used Qualtrics (online survey software)
  • Survey active for two weeks
  • UPA office provided contact information for survey population
  • Incentives offered for survey completion (Amazon Kindles)
Survey Analysis

- Microsoft Excel
- Qualtrics analysis tools
Survey Response

September 2011 short in-person

- 177 responses in ~177 minutes
- Demographics of survey respondents similar to survey population
  - Departments
  - Undergraduate/graduate
    - Note: 77% undergraduates

Fall 2012 graduate online survey

- 781 responses (31% response rate)
- Demographics of survey respondents similar to survey population
  - Degree programs
  - Departments
  - International students
Survey Results: September 2011

**Frequency of group study**

- Every day: 4%
- Several times/week: 13%
- Several times/month: 26%
- Several times/semester: 41%
- Never: 16%

**Group study: frequency & group size**

Bar chart showing the distribution of group study frequency and size for different ranges (2-4, 1-2, 4-6, 6-8, 8-10, 10+) with breakdowns for 1-2 times/semester, 1-2 times/month, 1-2 times/week, and Every day.
Survey Results: Fall 2012

Q: Have you ever used any physical spaces in the NCSU Libraries this semester?

- Yes: 77%
- No: 23%

n=714

Q: For which activities have you used library spaces?

- Both solo and group work: 49.5%
- Solo work only: 43.8%
- Group work only: 6.7%

n=511
Survey Results: Library Spaces (Fall 2012)

% use by degree program

- MS (non-thesis) (n=255): 86.3%
- MS (thesis) (n=133): 85.7%
- PhD (n=323): 66.6%

% use by College and campus

- Textiles (n=50): 92.0%
- COE (Centennial) (n=506): 73.7%
- COE (Main Campus) (n=148): 85.8%
Survey Results: Library Spaces (Fall 2012)

- What keeps them away?
  - Location of libraries
    - Inconvenience due to distance, parking, and/or transportation factors
  - Space
    - Alternative work spaces (e.g., offices)
    - Personal preferences
  - Collections
    - Use of online resources
Survey Results: Use of Hunt (Fall 2012)

- 77% of respondents anticipated using Hunt Library
- Includes 59% of Fall 2012 non-library users
Surveys: Lessons Learned

- Paper works better for in-person surveys: can process multiple respondents at the same time
- Take advantage of campus-provided tools and resources, if available (e.g., Qualtrics, survey support)
- Check if clearance is needed from appropriate campus organization(s)
- Resist “mission creep”
- Minimize use of complex questions
- Use text questions/answers to help clarify data
Final Thoughts…

• Design
  • Factor in time for IRB approval
  • IRB application form provides a vehicle for thinking through various steps of study

• Analysis
  • Factor in the time needed for post-study analysis

• Other
  • You get better as you learn
  • Recognize the limits of study types
  • The value of triangulation
  • New role for the subject specialist
  • Just do it!
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