Evidence-Based Renovation: How Libraries Can Engage User Behavior to Inform Space Planning

Willie Miller & Paul Moffett

IUPUI University Library

Indiana, USA

IUPUI

Institutional Context

- Indiana University-Purdue University Indianapolis (IUPUI) is an urban research university with approximately 30,000 commuter and residential students.
- Since 1993, the number of full-time students has increased by nearly 9,000.
- About 2,000 students now live on campus, up from 350 in 2003.

IUPUI University Library

Built in 1993, IUPUI University Library contains five levels with informal study space available on three floors.

- Current capacity: Approx. 750 seats
- Study spaces are a mix of group and individual seating areas, study rooms, and computer work stations.

Research Question

How can we ensure design plans for space renovation meet the needs of library users?

To inform the design, we set out to learn about student study behaviors and preferences within various library environments.

Methods

Data Collection

Three information gathering methods: Observation, Open Question Solicitation, Surveys

- Data gathered at different times of day, from different individuals, to reach a broad representation of users
- Two data-gathering periods: once at peak building occupancy (final exam week - Dec) and once at ‘normal’ occupancy (Feb)

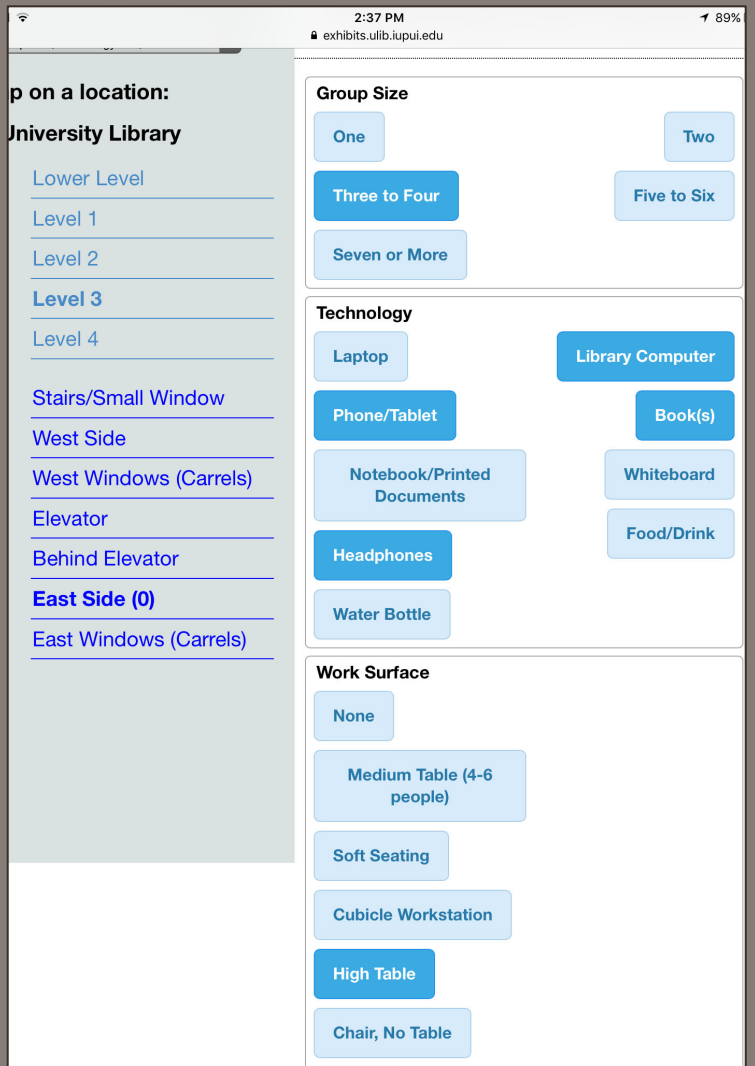
Method 1: Observation

Using a open source space assessment tool (Suma), deployed on iPads, made it easy for staff to quickly observe library spaces and record data.

- Layout and interface were customized with a hierarchy of study areas on the third and fourth floors
- Categories were added including group size, work surface type, and technology type. Inside each category was a list of attributes or activities.
- Library staff moved throughout the floors, collecting information within each area, choosing all the attributes and activities within each of the three categories that matched their observations.

Suma

- “Suma is an open-source mobile web-based assessment toolkit for collecting and analyzing observational data about the usage of physical spaces and services.”
- https://www.lib.ncsu.edu/projects/suma



Method 2: Open Question Solicitation

We placed 4 questions on both the 3rd & 4th floors and gave students a week to respond on the white boards

1. Questions:
    1. Where are you sitting today? (Quantitative, tally)
    2. What are you doing in the library today? (Quantitative, tally)
    3. What kind of space makes you feel productive? (Qualitative, open-ended)
    4. What could the library add to its spaces to help you learn better? (Qualitative, open-ended)

Method 3: Surveys

Fall 2016: In-library survey returned 1,075 student responses about preferences for seating types and study environments, student demographics and their library activities, and thoughts about how to improve the library.

Spring 2017: Campus-wide ‘Jag Speaks’ survey, sent out to 5,000 students by the office of Institutional Research & Decision Support (IRDS).

Findings

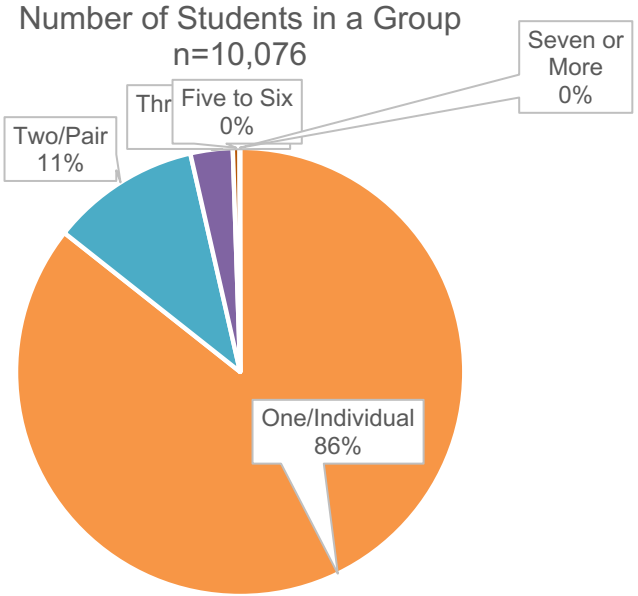
Findings

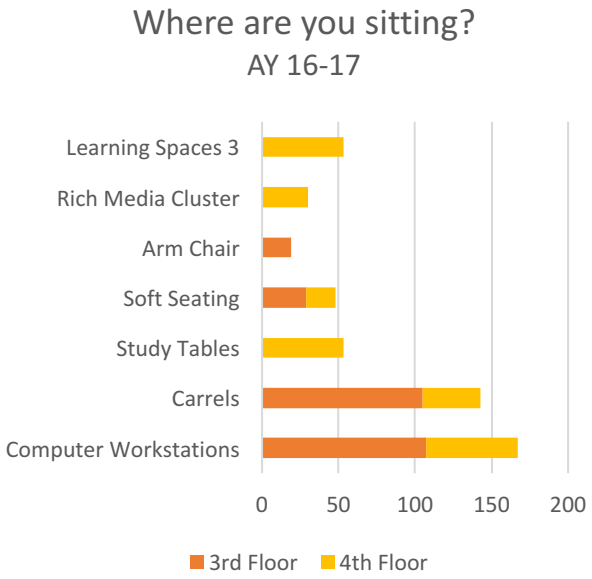
- Students value individual study spaces as much as group study spaces
- Majority of ‘groups’ observed were individuals, working alone; however group study is important, and occurs more consistently throughout the day
- Seating designed primarily for individuals (carrels and computer workstations) were the most popular.
- Many respondents to surveys indicated they “studied or worked individually”; 746 said a “quiet place to work alone” was ‘very important’
    - 337 chose the library to do group work during their visit; 688 said group study spaces were ‘very important’, while 613 said tools for group work were ‘very important’

Findings

- Undergraduates use the library more often then graduate students, both to study individually and to work on group projects
- Graduate students are more likely to use library collections than undergraduates
- Students choose to study at their residence more than other options (coffee shops, other campus locations), if not the library
- Adding more comfortable seating and access to power were the most cited improvements that would increase visitation

Findings (Cont.)





Conclusion: Renovation Plan

- Additional seats and power outlets
- Redesigned reading room
- Large rooms for silent study
- New one and two-person carrels
- Open concept group study areas
- Redesigned study rooms
- Noise control solutions

Resources

1. https://ulib.iupui.edu/space/home
2. Appendix: Suma Activity Tree
3. ‘Commuter campus in transition: Meeting the changing space needs of commuter and residential students through mixed methods assessment repository’ in Serving Commuter Undergraduates in Academic Libraries

Thank you

Willie Miller
wmmiller@iupui.edu

Paul Moffett
pamoffet@iupui.edu

IUPUI
FULFILLING *the* PROMISE