

Quick and (Mostly) Painless Space Usage Assessment Using iPads

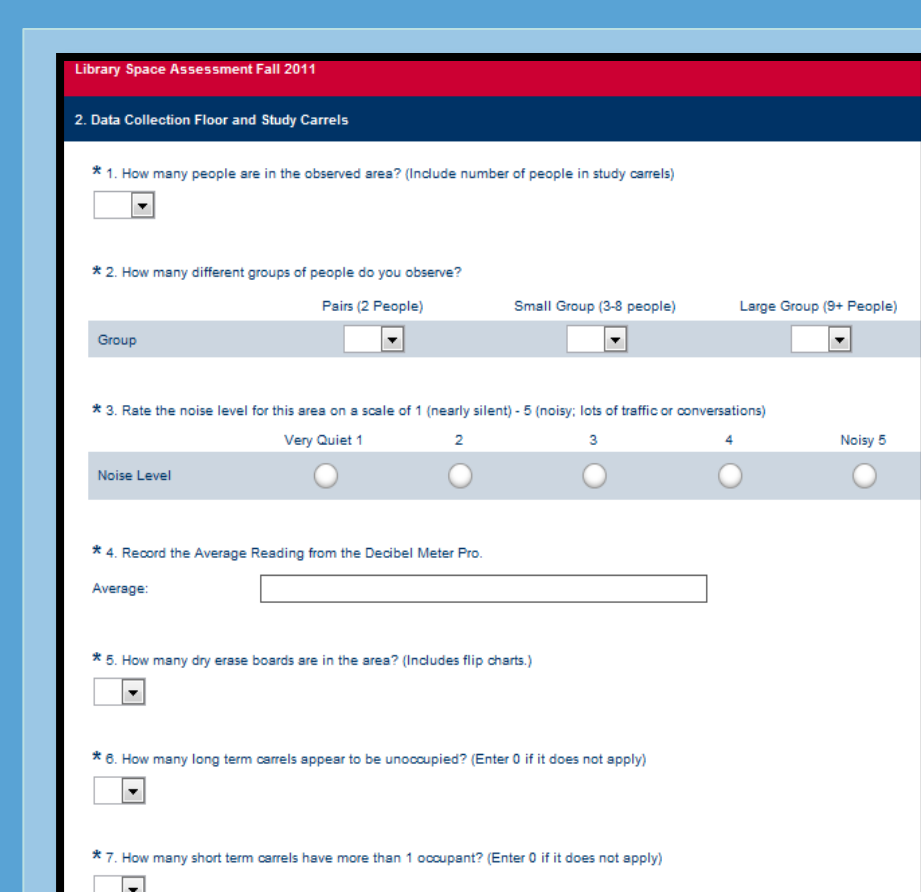
Background

- Based upon a pilot conducted in Spring 2011 to assess how public spaces are being used within the Main, Science and Fine Arts Libraries through unobtrusive observation

Methodology

Observational data looked at:

- Total number of people
- Number and size of groups observed
- Number and size of groups using group study rooms
- Number of people using long term study carrels
- Number of people using computers in Info Commons
- Number of unused computers in Info Commons
- Number of people using laptops in Info Commons
- Number of people sitting at tables and chairs in Info Commons not using library computers



SurveyMonkey form for the Main Library

Data collection:

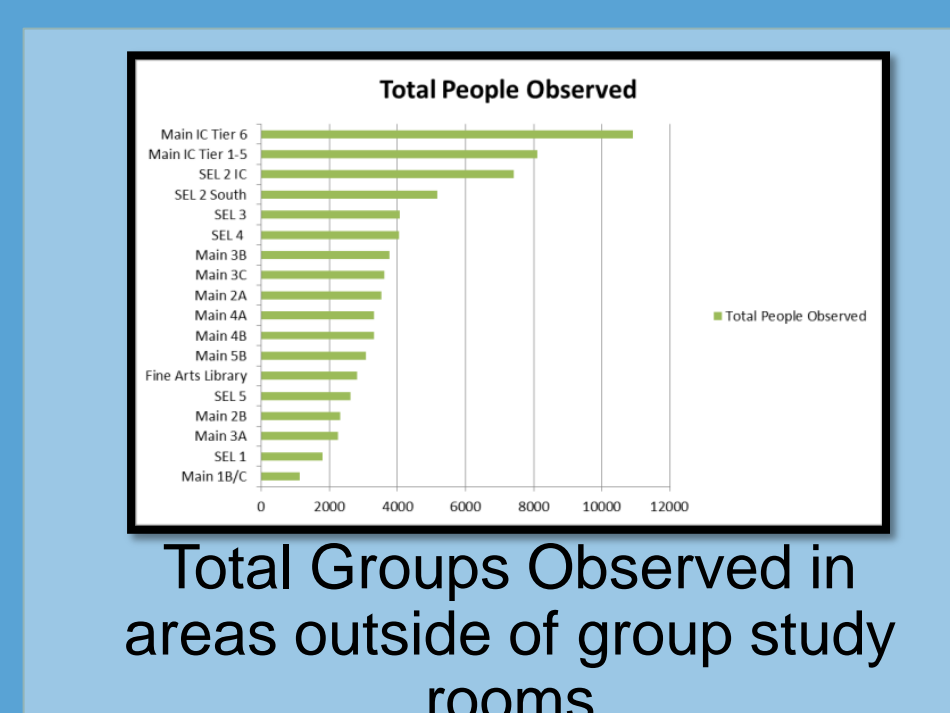
- Took place hourly from 8am-5pm using two temps at Main and Science, and an on-desk staff member at Fine Arts with additional overnight collections taking place at 9pm, 1am and 5am
- Two sessions took place:
 - Monday October 31 to Friday November 11th (Regular session)
 - Monday December 8 to Friday December 16 (Finals week)
- Additional counts took place at Main and Science from 6-8 pm from January 23-February 10, focusing on long-term study carrels

- Data collectors recorded observational data on how people modified existing library spaces to meet their needs through movement of furniture, dry erase boards, and other unique configurations in open study areas and group study rooms

Findings

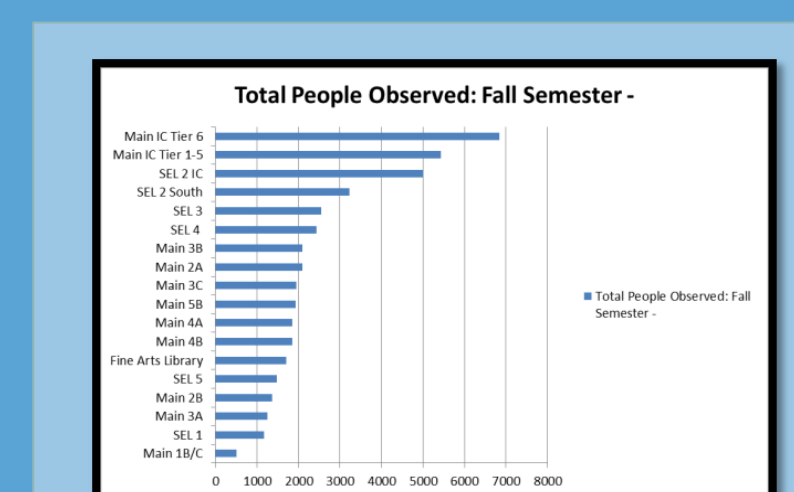
Busy Spaces:

- Main Library Information Commons, Science-Engineering Library Information Commons, and Science-Engineering Library Current Periodical Room are the three most heavily used areas of the libraries with 46% of total people observed in these locations.

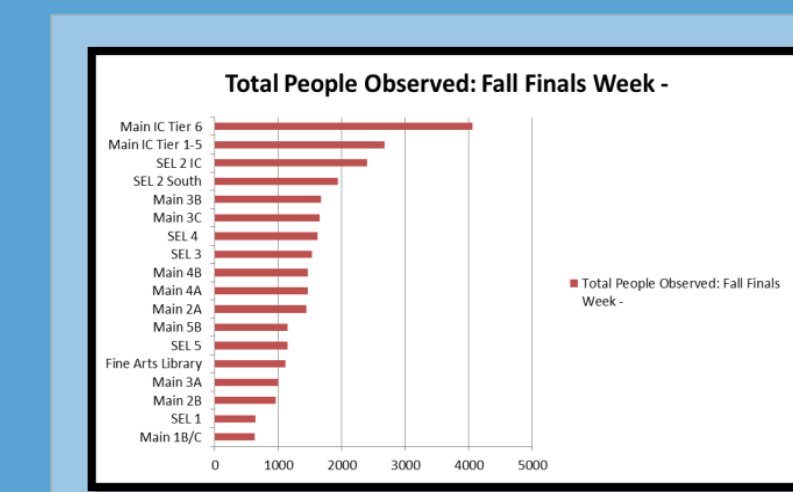


Total Groups Observed in areas outside of group study rooms

- When comparing the regular semester and finals week, the populations shift slightly with a larger portion of people observed in the 3B/3C pods of the Main Library than on the Science third and fourth floors



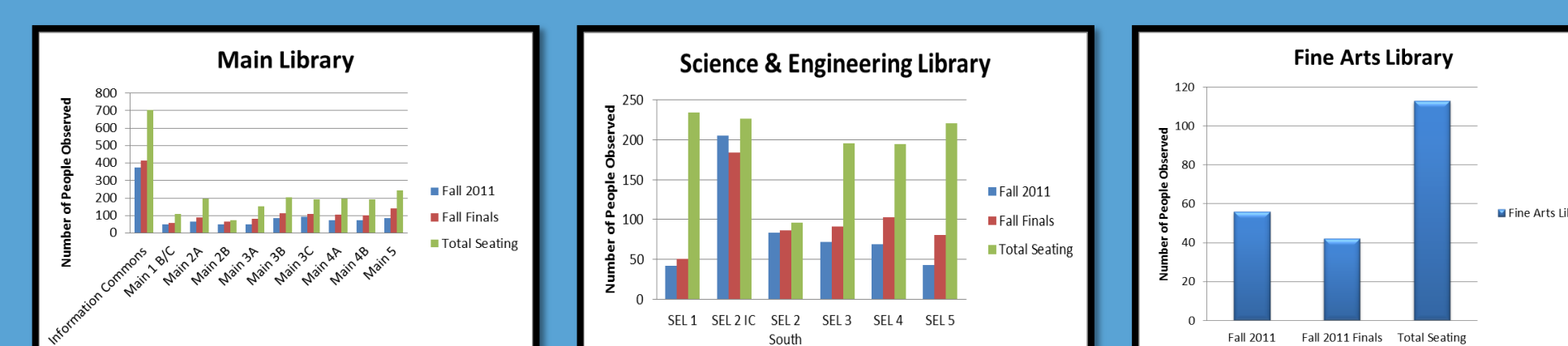
Total people observed. Fall semester collection period.



Total people observed. Finals week collection period.

Peak Hours:

- Varied by location and observation period
 - Regular semester: Monday-Wednesday
 - Finals: Friday and Sunday
- Peak period between 10am-4pm, however hours after 5pm underrepresented in the data and Main and Science see heavy usage through 10pm



Total people observed. Fall semester collection period.

Study Spaces:

- Customers frequently move furnishings in all areas, including moving small tables and chairs together to create group study spaces and to be closer proximity to power outlets
- Portable dry erase boards frequently moved for group work and to create walls for ad-hoc group study spaces.
- Majority of users outside of Information Commons areas appeared to regularly use laptops, tablets, and mobile devices
- Airport style charging tables are heavily used at all sites
- Users move individual wooden study carrels into aisles of the stacks, near windows and power outlets
- Customers utilize local resources to modify the environment to meet their needs without input from the library
- The team analyzed hourly head count data collected for the Science Library current periodicals room over the last 18 months
 - Found a 31% increase in activity in the space during the eight months following the June remodel when compared to the same period last year
 - The total number of seats (97) did not change, however the number of available power outlets was increased with a mixture of "airport tables", café style seating and soft seating with close access to outlets



Science-Engineering Library Current Periodical Room after Redesign



Table upended and used as a "dry erase board"

Information Commons:

- Specific data regarding the use of library computers and laptops was gathered in the Information Commons

% of Information Commons Users for the fall semester period	Main Library	Science-Engineering Library	Fine Arts Library
Sitting at tables or in areas that do not include a library computer	12%	12%	40%
Using a laptop, netbook, or tablet computer	22%	10%	27%
Average number of available library computers	115	12	6

Recommendations

Long Term Study Carrels:

- Based upon peak occupancy levels:
 - 15% of 261 long-term study carrels can be converted to short term (6 hour) carrels
 - Short term study carrels can be expanded to undergraduates
 - Update the current carrel management process from a two year check-out period to a one year or semester loan period, increasing contact between staff and long-term carrel users to enable library to meet needs of PhD students and research faculty while addressing needs of others for quiet, individual study space

Furnishings:

- Future furniture purchases should incorporate access to electricity
- Changes to public furnishings should incorporate flexibility in the selection of design elements like tables, seating and equipment to accommodate shifting patterns of use by both groups and individuals during the academic year

Data Collection:

- AIST should conduct additional assessments using methodology developed to evaluate impact of the implementation of any recommendations, as well as impact of recent changes to building and computer access policies
- Assessment should target peak periods for the fall and spring semesters FY13 and FY14
- Future data collections should be conducted by small group of collectors hired specifically for this purpose. Using a small group of dedicated collectors provided a more efficient and consistent data collection process

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