



# UX RESEARCH— SPACE DESIGN

Academic libraries regularly need to re-evaluate services and spaces to accommodate for the growing and changing user populations. Library users have varying preferences and needs when it comes to library space usage, including but not limited to solo workspace, group workspace, noise level preferences, seating comfort preferences, and service options.

The study utilized a qualitative mixed-methods approach to discover the user perception of “spot” selection in an academic library by interviewing ten library users. Users were selected across all four floors, and in different sections of the library in November 2022. The results suggest metrics for assessing and designing library spaces.



# SUMMARY

## REASONS FOR VISIT

Space—as a destination—is the reason for using the library. All 10 participants use the library “to get work done” which can range from completing assignments, studying, writing, finances, and grading. Reasons for selecting the library as a destination for this work include the existence of quiet spaces, reservable spaces, relaxing spaces, computer use, and services (printing, book checkout, Makerspace, Writing Center, and food). Work and services are the bulk of the reasons, but having access to food, meeting up with friends or waiting on family was also a critical point for some. The library is used by students, university employees, and family of students.

## LOCATION SELECTION

Most participants characterized their favorite location or place in the library based on attributes of the space. Most chose a location that offered them no distractions (6), and to a lesser degree where the space was comfortable (3), quiet (2), proximity to services such as vending and Makerspace (2), and ability to connect with friends (2). Purpose was also important for space selection, depending on types of spaces: public together (noisy open space), private together (group study rooms), private alone (quiet individual study room), and public alone (quiet open space). Note: public alone can be in social spaces where users need visual and audio stimulus or background noise; or public alone can be in quiet spaces.

## DEMAND FOR PRIVATE ROOMS

Whether a user’s goal was to study for a test, write a paper, or read, the majority of participants preferred an isolated space such as a reservable study room or private office. Study rooms or private offices that are first come first serve are also important for users that spend all day in the library.

## DESIRED SPACE ATTRIBUTES

Specific attributes of spaces that participants seek include large tables to spread out (even for just individual use), windows, computer or extra monitors, and quiet or secluded. Not only comfortable furniture but variety of furniture options to accommodate various tasks, access to plugs, and all day use—study rooms could have both hard and soft seating options.

## HABITUAL SELECTIONS

As creatures of habit, participants gravitate to the same one or two spots during space selection. They do not know all the offerings throughout the library or that their desired space attributes are also located in other areas. This is an opportunity to improve user knowledge and awareness. Signage and wayfinding can help users know where social or quiet spaces are located, as well as, reservable rooms and their availability.

## FRUSTRATIONS

Participants like the library but there are a number of pain points that could be addressed to improve their experience. Most notably are the room reservation system, cleanliness of the library, noise level (some spaces are too loud), technology (slow printers and missing pieces of Makerspace equipment), and furniture (comfortability and location). Signage and wayfinding could also help address these points. Signs could direct users to other spaces (ie: Is it too loud here? Try xyz location on the x floor).



## User Visits

- 4 users visit 4-5 times/week
- 4 users visit 2-3 times/week
- 2 users visit a few times/month



## 10 Participants

- 5 undergraduate students
- 4 graduate students
- 1 community member



## Majors

- 4 CBAS majors
  - Biochemistry
  - Biology x2
  - Engineering tech
- 3 CME majors
  - Animation
  - Audio production
  - Media & Communication
- 2 CBHS majors
  - Psychology
  - Health & Human Performance
- 1 parent of student

# RECOMMENDATIONS

## COMMUNICATION & SIGNAGE

Modernize and improve wayfinding and signage to make positive impacts to the user experience. From study room and seating varieties to directional signs to find other/similar places in the library. Update signage including more obvious verbiage for circulation, reference, Electronic Information Center and technology services. For example, 5 of 10 participants never checked out a book; 3 of 5 guessed incorrectly even when shown options that had the name of the desk/service.

## MORE STUDY ROOMS

Private offices or study rooms were consistently discussed throughout the interview process. More study rooms are requested as they provide privacy, seclusion, quiet and the atmosphere to get work done over a dedicated or long period of time. Even if smaller in size, study rooms would be used. Dual monitors in these rooms would be ideal, along with some having computers. Private space is highly desired.

## LARGE TABLES FOR SINGLE USE

Purchasing or placement of large tables for individual use with built in plugs is also high on the priority list for participants. They want to spread out but not share the space with others. Perhaps only having 1-2 chairs available at some large tables to make it less appealing to groups.

## ROOM RESERVATION SYSTEM

Modify the room reservation system to allow people to update/change their reservation without having to cancel it and rebook it. Also, room access without reservations would help alleviate some pain points when the room is shown as booked but not in use, and reserve in 30-minute increments.

## INTUITIVE SOCIAL SPACES

Make finding spaces for social use more intuitive so users don't have to hunt for a spot to socialize. Avoid a shared study/social space. This could potentially cut down on noise complaints. An example: A café setup on the first floor near the service desk and Starbucks. This space is visible and social but also near library personnel thus people may be quieter while socializing.

## MORE FOOD OPTIONS

Whether the participants had short or long stays in the library, access to food was important. More food options, including vending (perhaps co-located in the social café space) since the library is often the only place open for food on campus and so users don't have to leave the library for food.



The British Library



Imperial College London-Library Cafe



Saddleback College



Bakirkure Architects

## FURNITURE & SEATING

Arrange furniture based on social or quiet zone purposes. For example, don't group chairs conducive to socializing in quiet zones. Be intentional with comfortable seating placement, including some in both isolated and social spaces and study rooms.

## GRADUATE CARRELS

Observational and anecdotal references note that some carrels are used, however, the majority are underutilized, including those placed along the southside windows. These spaces have natural light, a sought-after attribute of users but the furniture is restricted to carrels. Rearrange furniture in these areas to have options for soft seating (west) and carrel (east) for single use on quiet floors and grouped together for social use on social floors. To increase their use, have visual signage with soft chair or carrel pictures and directional arrow.

## Resources

Asher, A. and Miller, S. (n.d.). So You Want to Do Anthropology in Your Library? Or a Practical Guide to Ethnographic Research in Academic Libraries. The ERIAL Project.

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Nielsen, Jakob. "Why You Only Need to Test with 5 Users." Written March 18, 2000, Nielsen Norman Group. <https://www.nngroup.com/articles/why-you-only-need-to-test-with-5-users/>

Wortman, B. (2012). What are they Doing and What do they Want: The Library Spaces Customer Survey at Edmonton Public Library. Partnership: The Canadian Journal of Library and Information Practice and Research, 7(2).



Figure 1: Space Use Preference by Noise and Privacy Level

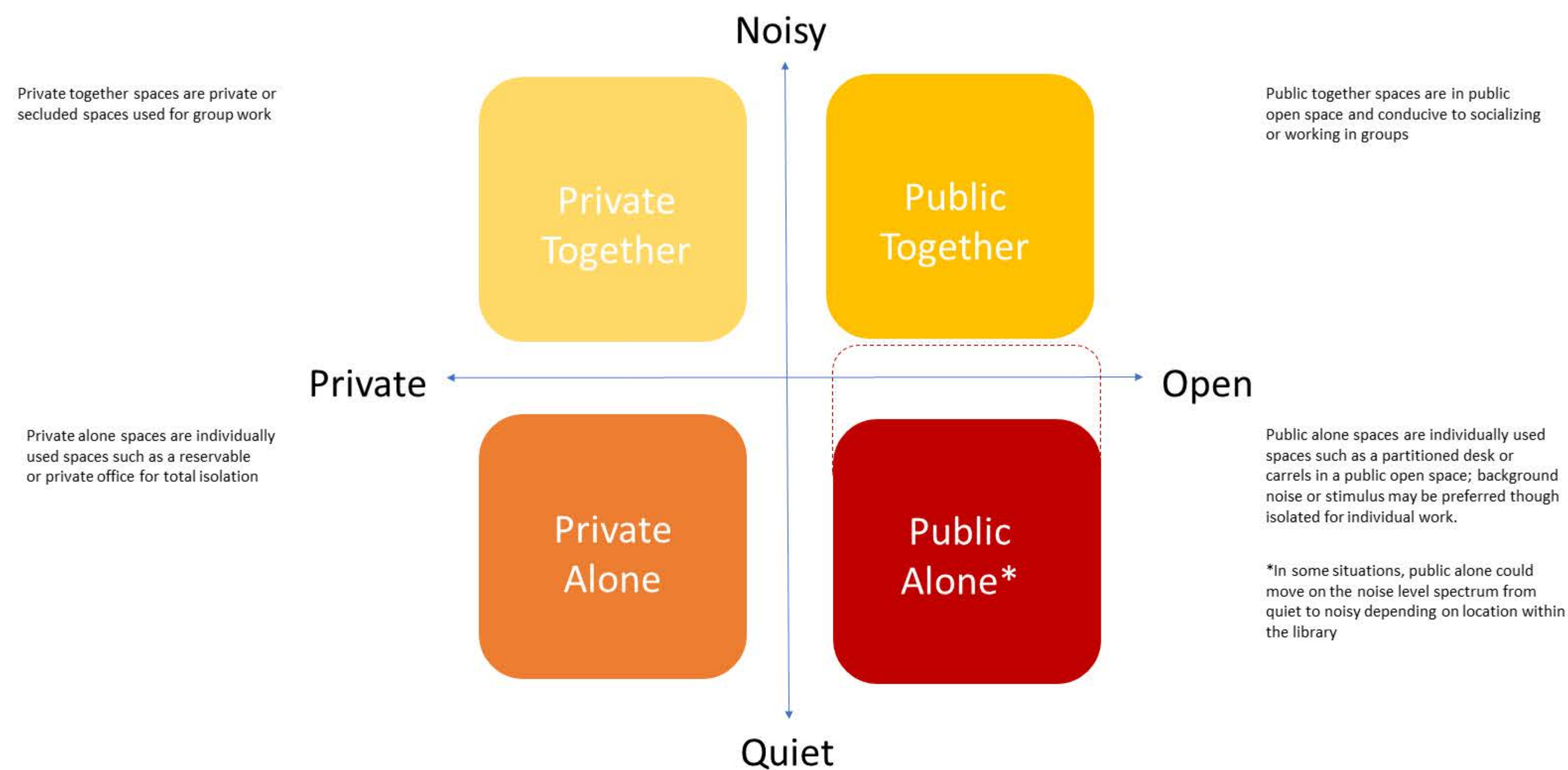


Figure 2: Space Furniture by Noise Level

