

### **Project Goal**

To improve the Study and Learning Spaces website which is mainly used by Mount Holyoke students. Represent the resources available at the Study and Learning Spaces to all students.

## **Background**

## Methodology

- Initial in-person interview were conducted around the LITS complex
- Interviewed 18 students
- Initial survey was circulated to gather information about user patterns and to recruit users for in person testing
- Collected 18 student survey responses from the 18 interviewees above
- Met with the stakeholder
- Created wireframes and prototypes
- Unmoderated usability testing with Loop11
- 5 students took the test
- Loop11 tasks documented quantitative and qualitative information
- Each session include 19 tasks and evaluating questions to measure key performance areas
- Data from the initial survey, discovery phase, and the test session has been compiled, analyzed and visualized in this report.

## **Initial Survey**

Key takeaways (data point > recommendation)

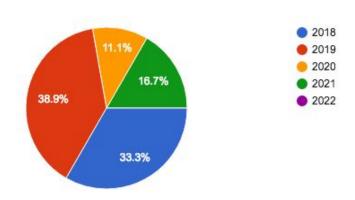
- 16 of 18 participants go to the library on a daily basis. 83.3% of them have used a Study and Learning Space.
- More than 50% of participants have specific favourite spots to be (quiet spaces, meeting spaces, needed equipment provided, etc.). We suggest providing all spaces details with filters on the LITS web page, so that students can find the spaces that serve their purposes.
- 94.4% of participants do not know they can use the LITS website to find a study space. We recommend placing the Study and Learning Spaces on the LITS website more prominently so students can find information to navigate around.

## Background

There are 17 Mount Holyoke and 1 Umass Amherst students participating in the study, representing a wide variety of majors. The majority are juniors and seniors, with 3 freshmen and 2 sophomores.

# What is your graduation year?

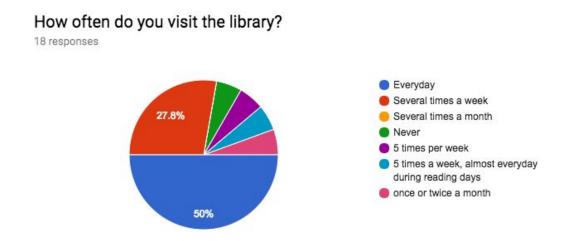
18 responses



15 students were interviewed in the LITS buildings and 3 participants completed the interview questions online. The participants were asked seven questions designed to surface their use of study and learning spaces, as well as their habit finding study rooms.

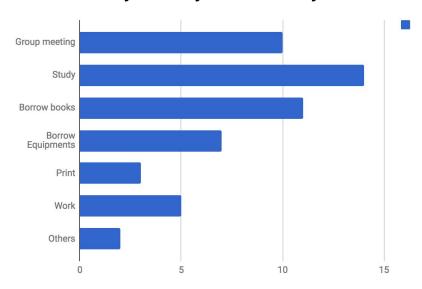
Results: Use of Study and Learning Spaces

#### **Question 1:**



Nine out of eighteen participants indicated "every day" and six participants indicated "several times a week" and "5 times a week" (one including "almost every day during reading days"). One participant provided "once or twice a month" and one participant said "never".

Question 2: What do you usually do at the library?

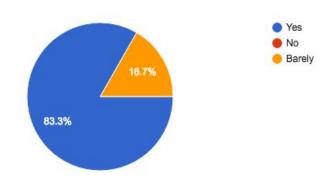


Most participants come to the library to study, do group meetings and borrow library materials (books, equipments, chargers, print, etc.). Five participants mentioned they work at LITS.

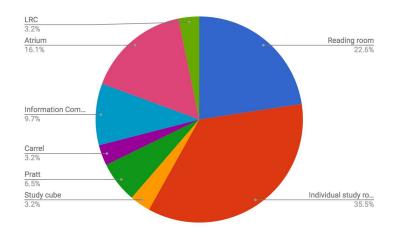
#### **Question 3:**

### Have you ever used a learning and study space?

18 responses



#### Question 4 (Follow up - optional): If yes, where do you usually go?



One third of the responses provided the reasons for participants to choose a space.

Eight answers are related to noise level and specific purposes:

- "only with friends"
- "only used when study with friends"
- "doesn't like to study in quiet spaces"
- "group meeting area in 6th floor"
- "when study alone"
- "quite, less people"
- "Not actually studying"
- "Not doing intense work"



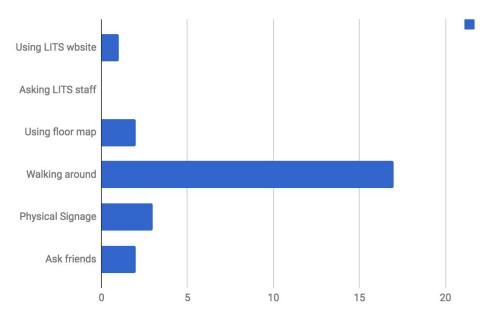
Six provided answers are related to availability of rooms:

- "hard to find seat at night and reading days"
- "hard to find available room"
- "with reservation"
- "Hard to get"
- "Always available"
- "Without reservation"

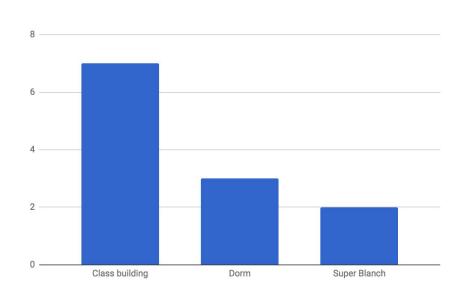
Three answers mentioned the whiteboards:

- "With whiteboard"
- "Like to use whiteboard"
- "Anywhere with whiteboard"

## Question 5 (Follow up - optional): If yes, how do you find available spots to study?



Question 6 (Follow up - optional): If no, where do you usually study?



Seven provided answers are related to class buildings, including Clapp, Shattuck, Kendade, Reese, with the reasons:

- "between classes"
- "close to classroom, when there are no seat at the main library"
- "Near dorm"
- Always available at night

Three provided answers mentioned the dorms, with the reasons:

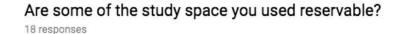
"Convenient"

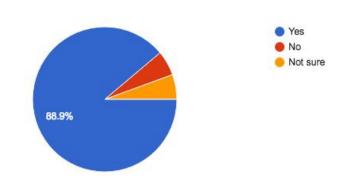
Two provided answers mentioned the Dining Commons, with the reasons:

- "food provided"
- "after meal"

#### **Question 7:**







## **Discovery Phase**

## **Business Requirement**

Increase the students' awareness of the Study and Learning Spaces and present the available resources to the students.

#### Personas

After gathering the quantitative and qualitative information from the students, we created 3 personas based on the students' needs and goals. A user persona is a representation of the target customer, which helps the researchers focus on the customer's need.



Becca is a junior majoring in Biochemistry. Most of the time she stays in the Biochemistry lab to conduct experiments. She often stays at the Library Atrium when she has less intense work. As her goal is to maintain a work-life balance, Becca often sees her friends in the library when they

are studying. Becca represents the group of students who would socialize while they are at the library, so they need the space that is not too quiet and has a chill atmosphere.

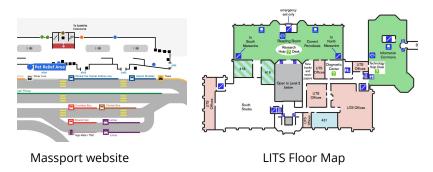
Wendy is a sophomore who lives in Mandelles. As her dorm is very far from the library, she often tries to spend as much time as possible there. Wendy prefers to study in the puzzle room and does group meeting in the IC or the Atriums. In case those rooms are not available, she will walk around to find a space that meets her needs. Wendy represents the students who come to the library with multiple purposes and have preferred study spaces. As we consider Wendy, we also keep in mind that distance to the study spaces is an important element.

Sara is a senior majoring in English and minoring in Music. She is working on the thesis and hopes to graduate with the highest honor. She goes to the library everyday until 2am and often stays in the individual study rooms with whiteboard. Sara represents the students that are busy and use the library intensely.

## **Heuristic Analysis**

Before we stepped onto the real design of the Study and Learning Spaces webpage, we did a similarity search to find interesting examples of interacting map and designing of the webpage. The followings are the ideas that inspired us and also got applied to our web design.

#### Interaction Map



The <u>MassPort</u> website uses a color-coded interaction map to display airport directory. We apply this idea when designing our floor map. The original floor map used color to represent the different type of spaces in LITS, such as office, study and learning spaces, public area. However, the architecture design of Williston library itself is complicated. Adding the interaction map feature would help people to locate the spaces easier and increase the usage of our webpage.

#### Display information





Meeting Room 204

0.01 mi. Campus Center



Lower Level Lounge 0.02 mi. Campus Center Study Room, Classroom

Chatter

Natural lighting

Vending machine in building

#### SmithScape



Arts Library 8am - 9pm

♥ 1400 Public Affairs Building, Los Angeles, CA 90095-1392

(310) 206-5425

arts-ref@library.ucla.edu

#### At This Location







#### **UCLA Library**



#### **Reading Room**

4th floor of the LITS Complex

• A wide variety of study areas to choose!

#### MHC Library

Both <u>UCLA library</u> webpage and <u>SmithScape</u> use icon to represent resources, while our web page uses text. Based on the research suggested that images are <u>processed 60,000 times faster than text</u>. We decided to try our best to change text to image, such as adding more icons.

# **Unmoderated Remote Testing**

# Methodology

- Initial survey was circulated to gather information about user patterns and to recruit users for user testing
- Collected 8 student testing responses from Loop11
- Selected 5 valid responses and watched responding video (2 come with voice recorded)
- Test includes nineteen tasks including multiple choice, short answer, and series of website operation.
- Data collectors documented quantitative and qualitative information from video



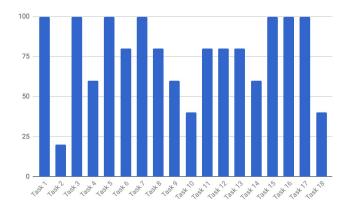
## Key performance areas that were measured

- Snack is the information helpful?/ do people use hover feature?
- Slide show when do they use it?
- Icon is the meaning clear/ do they use filter or icon when searching a room with specific needs?
- Filter/display how they use it?/ can they find what they need quickly?
- Navigation easy to find from LITS home/room page/ floor map page?
- Detail page how do they read the page?/do they use the map feature?
- Map how do they navigate?

## **Success Perception**

Average success rate: 76.7%
Highest success rate: 100%
Lowest success rate: 20%

• Task 2: using slide set to locate Reading Room page



## **General Usability Points**

- All students were able to find the Study and Learning Spaces from home page quickly.
  - Quote from students
    - "really cool...nice... really cool... nice"
    - "that was easy"
- All students were able to navigate between the Study and Learning Spaces page to room page by using slide set and room list. Additionally, they were able to check room detail easily.
  - Quote from students



- "That's cool...It fits 74 people...I didn't know it before"
- All students liked the interaction map feature and were able to use it easily.
  - Quote from students
    - "that was easy enough"
    - "I like the pop out"
    - "nice feature"

#### Issues discovered & fixed

- Slide set
  - Students did not use the slide set as open as we thought. Changed the size of the individual slide to increase the capacity from 3 to 10.
- Display bar
  - Students were confused about where to click on display bar due to the text color. Combined text and drop-down bar together.
- Buttons
  - On the direction session of room detail page, Locate on Map and button to floor map were too close to each other. Moved the button to floor map onto map session and changed the button color to make a better contrast.

#### **Recommended Features**

Within the limited working time period, we created a list of Minimum Viable Product (MVP) that could finish this semester and a list of future features.

#### Minimum Viable Product (MVP)

- Room page
  - Each Study and Learning Space has its own room detail page which displays information such as location, open hours, resources with icon, descriptions, and using suggestions.
- Study and Learning Spaces home page, also known as Filter page
  - The home page has been separated into four sessions: filter bar, display bar, room list, and slide sets. Filter bar and display bar help student to find spaces easily which slide sets can promote different types of spaces.
- List of all spaces available
  - This web page displays a list of study and learning spaces from LITS complex, Pratt Library, and LRC with open status, direction, image, and resources.
- Interactive floor map



■ This feature allows students to locate study and learning spaces easily and provides a nice navigation process between floor map to the home page.

#### • Future recommendation

- o Include Study and Learning spaces in "I want to" search□
  - The result of user test suggested that 80% of students used "I want to" search when looking for a study and learning spaces. For the purpose of increasing the usage of our website, it would be nice if the website could be included in "I want to" search.
- o Expand to Blanchard and classrooms 🛘
  - Based on the result from the first round interview and initial survey, students mentioned that they have been studied in Blanchard and classrooms due to availability and proximity. However, there is no list across campus that displays these spaces. It would be nice if we could expand our room list not only in LITS system but also to Blanchard and classrooms.
- Reservation system
  - This project started with focusing on improving the reservation system but changed to providing more room details. The data we gathered from the first round interview suggested that students were not satisfied with the current system and wanted an online reservation system.