

Usability Test: *Finding Library Spaces*

Recommendations

1. *Create a visible scroll bar for the Features and Library filters. Currently, the scroll bar is only visible if a user is already scrolling. However, participants were not aware that there were more options in these two categories. This is probably because the first filter, Noise Level, only has three options so there is no need to scroll. Participants were visibly surprised when they happened upon the ability to scroll for more options.*
2. *Make the font within the filter selections larger. Some participants strained to see what the options were because of the small print.*
3. *Randomize the order of presentation of spaces to make the page more interactive. Participants gravitated towards the first row of spaces on the page, presumably because they were the most immediately visible. They did not scroll to the bottom rows to find a room, even if those were a better 'match' for a room that need their needs.*
4. *Add a noise level icon for meeting rooms on the webpage. Also, ensure each study space includes a noise level icon. Participants who did not use the filters to search for rooms were confused why only some of the spaces had noise level icons while others did not.*

Background

This study was conducted to test the usability of the newly redesigned Library Spaces Pages, which collects spaces in Duke University Libraries. It was developed and conducted by Cary Gentry and Many Rizki, with guidance from Emily Daly and Thomas Crichlow. On February 28th we began our testing by working with a pilot participant, a student employee from the library's service desk. On March 2nd we proceed onto the lobby for usability testing. We were located outside of the Von der Heyden Pavilion in Perkins Library we recruited 6 participants. Cary Gentry moderated all 6 participants and Many Rizki took notes for each test. Each participant was given a voucher for a free coffee or snack. For result analysis we also count our pilot test as we did not modify our script after that, resulting in a total of 7 participants.

Questions we hoped to answer through this study:

1. How easy or difficult is it for participants to locate the Find Library Spaces page on the Duke University Libraries website?
2. How easily can participants use this page to find a study space that meets their needs?
3. How easy or difficult is it for participants for the Find Library Spaces page to find a place for individual study? With different noise requirements? Doesn't allow food? Other needs?
4. How do participants find and reserve a space to hold events for groups of people in the library?

Participants

Roles at Duke

- 6 undergraduate students
- 1 staff

Had participants used the Library website to find or reserve individual or group study rooms before?

- Yes: 2 participants
- No: 5 participants

Had participants used the library website to find a space to study before?

- Yes: 2 participants
- No: 5 participants

[if yes] what information were they looking for?

- Both participants said they were looking to book a group study room

Key findings

1. *How easy or difficult is it for participants to locate the Find Library Spaces page on the Duke University Libraries website?*

5/7 participants found the page right away by clicking on the 'using the library' subheading

1/7 participants used google to search 'study space duke library'. They clicked on the first result, which redirected them to the Find Library Spaces page.

1/7 participants found the page by clicking on the 'using the library' subheading. However, they first toggled to the "search and find" subheading and it was only after none of the options meet their needs that tried 'using the library'.

2. *How easily can participants use this page to find a study space that meets their needs?*

Preference for study place

6/7 participants described their preference for an individual place in the library but not a study room. They liked studying alone, but in a communal space. Participants used words like 'not solitary' in the description of their study needs. One student said they likes first floor of Perkins because there is more activity, while others merely said they like being around other people.

4/7 participants mentioned noise preferences as part of their needs in a study space. Two participants mentioned 'quiet' in the description of their individual study needs. Another participant preferred a "conversational" space where it is okay to talk with friends or the people, they are working with for a group project.

1/7 mentioned a space where with screen sharing capabilities

1/7 specially mentioned the group study rooms in the Link as a place that meets their study needs and said that is where they spend a majority of their time in the library.

1/7 mentioned the climate, they were especially interested in a study space that was not cold.

Find a place that satisfies their needs

Participants tended to search for study space features in the order that they described them. The four participants who mentioned a particular level of noise first when describing their preferred study space also used the noise norm feature first when searching for a space.

4/7 participants used the filter functions to search for a study space that would meet their needs. Common filters were the noise norms, the 'food allowed' feature and location filters to narrow down options and find a space that meet their needs.

Our findings suggest that users are not immediately aware that the filter function has more options than what is immediately seen. 5/7 participants tried to use filters but didn't know that they had the ability to scroll down further and see more options.

1/7 participants didn't use filter function at all but instead just scrolled past that feature until they found a room, they thought they would meet their needs, based on the written description (in this case it was Carpenter).

1/7 participants used the free text search box to type in specific feature they did not see in the filter functions. In this case, it was a search for the Link.

3. *How easy or difficult is it for participants for the Find Library Spaces page to find a place for individual study? With different noise requirements? Doesn't allow food? Other needs?*

Find a quiet, food-free study space

Participants either used the filters function to narrow the results to find a space or they scrolled around and read through the descriptions of each room looking at the noise norm symbol and whether the text said the space was food free. During our replays of the screen recordings we noticed that many participants immediately scrolled down past the filters to browse the images of the library spaces. It was only after a user had a difficult time immediately finding relevant information (noise level, food-free) that they then scrolled back up to look at the filters.

4/7 participants used the filter functions to search for a study space that was and food-free and designated for absolute quiet. There were the same for participants who used the filter function in the previous task. They all quickly realized that they could change the filter settings and found new results quickly.

1/7 participants found a space that matched the requirements by scrolling around but then scrolled back to the top and used the filter function to find a matching study space. They were able to narrow their results to the reading room in Lily Library.

1/7 participants was quickly able to select the filter for 'absolute quiet' but doesn't know that they can continue to scroll through the features filter to select 'food free'. Instead they look through all remaining room descriptions to find if a space is food-free.

1/7 bypassed the filter feature and instead scrolled around and read through the descriptions of each room looking at the noise norm symbol and whether the text said the space was food free.

4. *How do participants find and reserve a space to hold events for groups of people in the library?*

Find and reserve a space to hold events for groups of people

3/7 participants scrolled around the Find Library Spaces and found the link to 'places for events' page. They did this almost immediately with very little confusion or uncertainty.

3/7 participants try to use the filter feature to find a space for a group event. One participant modifies their previous search by changing 'absolute quiet' to 'conversational study' and un-selects 'food free'. They then select 'group study' from the features filter. They then scroll through the list of options until they find one with the blue 'reserve this room' button. Another participant cleared the filters from the previous search and then selected the 'reservable' and 'places for events' filters under the features box. Another participant cleared the filters from the previous search and used the free text search box. They typed 'lecture' and looked through the nine available options.

1/7 participants thought first of reservable room and clicks on 'reserve a study room' button at the top left of the Find Library Spaces page. They are taken to the book a study room page. After Scrolling through and looking at the number of people the room holds, they notice that this may not exactly what they want but stops searching and are content with the results.

Appendix A: *Find Library Spaces* test script

Hi, do you have a few minutes to help us today with some usability testing?
[If they say yes, follow up with]

Great! We're with Duke Libraries and would like your opinion on our website. We also have a voucher for free coffee or snack.

Thank you for volunteering to participate in our study. My name is [name] and I will be walking you through our task today. This is [name] and they will be taking notes. I will mostly be reading from a script to ensure each testing session is as consistent as possible.

If you are ok with it, we will screen record this test today. It would be anonymous and deleted after we use it in our study. **[If they say yes, get [consent](#) for screen recording.]**

In January we updated part of the library website and we'd like to hear your feedback. We have a few general questions and 4 tasks; it should only take around 10 minutes. Don't worry about going too fast or too slow. There are no right or wrong actions here because we're testing the website, not you. This is less about finding the correct information and more about the process you use to search. You should feel free to provide opinions and feedback; it won't hurt our feelings. Do you have any questions so far?

Okay, we have just a few questions to begin.
[Ask Pre-Test Questions - see appendix]

Now, let's begin our test.
[Start screen recording]

Please tell us what you're thinking while doing these tasks so that we can get an idea of your thought process.

Task 1

You are going to the library and want to find a new place to study. How would you find a new place to study?

[record their steps and comments]

[If the student goes to the Find Library Spaces page, stop task here]

[If the student says they would walk around or ask someone, continue]

1A. Is there another way you might find a place to study in the library?
[record their steps and comments]

[If the student goes to the Find Library Spaces page, stop task here]

[If the student gives any other response, continue]

1B. How can you use the library's website to find a space in the library?
[record their steps and comments]

[If the student goes to the Find Library Spaces page, stop task here]

[If the student gives up or does not know where to find this information on the website, stop the task here]

Ok! That was really helpful. Let's keep going.

[If they have not arrived here yet, show the participant the Find Library Spaces page]

Task 2

Think about the kind of study space you'd like to use here in the library. Can you briefly describe this space?

[record their response]

Now, use this page to see if that kind of study space is available.

[record their steps of finding the place and comments]

Do these results show spaces that match what you are looking for?

[record their answers]

[if the answer is not yes, follow up with]

Can you tell me more about why these results didn't give you what you were looking for?

Okay, great. Let's move on to task three.

Task 3

You have a midterm coming up, and you want to find a quiet, food-free study space. Show me how you'd find a space to study for your midterm.

[record their steps and comments]

Did you find what you were looking for?

[record their answers]

[if the answer is not yes, follow up with]

Can you tell me more about why these results didn't give you what you were looking for?

Task 4

You are in a club that will be hosting a guest speaker. You want to hold this gathering in the library. How would you find a library space for this?

[record their steps and comments]

[If the user goes to the Places for Events page, finish]

[If the user goes to 25live to book a space in the Link, continue]

[If the user does not have any idea where to go, move to 5B]

5A. What if you want to book a space that is not in the Link?

[record their steps and comments]

[If the user does not have any idea where to go, continue]

5B. That's ok, this has been really helpful!

Ok, those are all the tasks. Thank you so much for taking the time to complete them! We have just a few wrap-up questions about your experience using this webpage.

[Ask Post-Test Questions - see appendix]

Appendix B: Pre-Test Questions

1. Which of the following describes you best?
 - a. Undergraduate
 - b. Graduate student
 - c. Doctoral student or candidate
 - d. Faculty
 - e. Staff
 - f. Other: _____

2. Have you used the library website to find or reserve individual or group study rooms before?
 - a. Yes
 - b. No

3. Have you used the library website to find a space to study in the library before?
 - a. [if yes] what information were looking for?

Appendix C: *Post-Test Questions*

1. [If they have used the page before] Could you briefly describe your last experience finding or reserving a study room?
2. How was your overall experience using these pages?
3. Is there any additional information you would like to see on this page to find a place to study within the library?
4. If yes, what would this information be?
5. Would you recommend this page to a friend? Why or why not?
6. Is there anything that you would like to say about your experience today that you haven't had a chance to tell us yet? Or any other comments or suggestions about the library?