

USABILITY AND HUMAN FACTORS

HENNEPIN COUNTY LAW LIBRARY

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Follow Along With Us: <https://z.umn.edu/HCLL>

Our Team: DWI (Designing While Inspired)



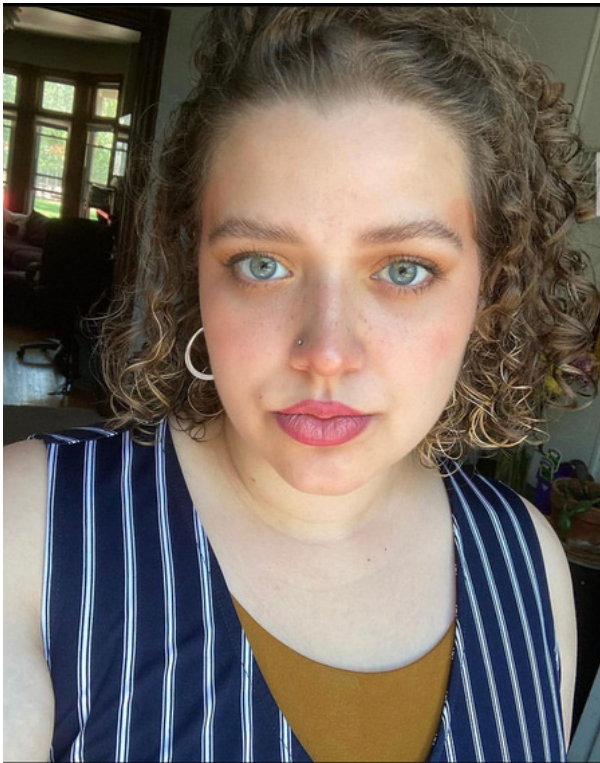
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Client Goals & Motivations

The Law Library is open to the public and provides legal materials, such as books, journals, and electronic databases related to law. Hennepin County Law Library had **three main objectives** for their Usability Testing Sessions.

1

**Clarify the
Continuing Learning
Education Page**

What about the CLE page is confusing to their users, both attorney's and the general public?

2

**Easier access &
understanding of their
legal databases**

Are users able to understand what specialized legal databases are available to them, and how they can access those databases?

3

**Contact/Hours
information easily
findable**

Is the contact/hours information easily findable on each page?

Law Library Users

Novice Archetype



Bio

This is **Sage**. Sage is 22 and does school while working a full time job. She often has to park on campus so she can commute to her job, but has received multiple tickets from doing so.

Goals

- To discover what law she has violated, or if there's been any law changes
- Determining if there is any legal action she can take to be compensated for tow
- Find out what prep she needs to do to represent herself in court

Pains

- Had to pay a fee for tow up front to get car back
- Doesn't know where to find resources to help fight her parking tickets
- She doesn't have much time to look into it in depth because she is so busy

Expert Archetype



Bio

This is **Tom**. Tom is a 35 and has two kids. He has been a lawyer for 10 years. Tom uses the Hennepin County Law Library frequently to keep up to date with CLE classes & to find useful resources.

Goals

- To take CLE classes when it fits into his schedule
- To quickly and easily find the resources he needs to successfully represent his client
- To become more self sufficient in the library by using the website

Pains

- Confused about which databases are accessible online versus in person
- Typing in keywords to try to doesn't bring him to the right spot
- Initially didn't understand what services subscription provided

INTRODUCTION TO USABILITY TEST

METHODS

Test Plan

1

Background Questionnaire

10 background questions to gauge with technology and libraries

2

Scenarios

3 scenarios relating to the Law Libraries identified usability problems

3

Debriefing Interview

4 questions following the session to unpack their findings

4

Product Reaction Cards

Post test 35 words for participants to choose from, they must select 5

Background Questionnaire

1 What is your age?

2 What is your primary context in which you use a computer?

3 Which of the following best describes your attitude toward technology usage?

4 How often on average do you use a computer?

5 How often do you use another device to access the internet?

6 What is your most commonly used internet accessible device?

7 How comfortable are you seeking out resources in your community?

8 When was the last time you've physically visited a library?

9 How do you most commonly research a topic?

10 Which of the following best describes your attitude toward the legal system?

Scenarios

Scenario 1

About Page

Your wife has filed divorce proceedings, and you decide to represent yourself. You know that many of the databases for you to find your information on are only available in person, so in order to perform your research, you would like to visit the HCLL in person.

Find information on the hours and location of the HCLL.

Find one physical resource the library has to offer

Find out how long the loan period is for the Minnesota Reference Materials.

Scenario 2

Online Databases

You are a public user who wants to find out legal information on parking tickets. Someone tells you that the database that holds the information you need is called the LexisNexis Database. Find out how you can access the Lexis database.

**Find the LexisNexis Database.
Find out how you can access the Lexis Database.**

Scenario 3

CLE's

You are a lawyer who heard the law library offered a course on Suicide Awareness & Prevention: You're unsure of when the course will be offered and want to find out the information in it. Find out where the course is.

**Find the course labeled Suicide Awareness & Prevention.
Find where and when the course is offered.**

Post-Task Questions

Scenario 1

About Page

- Rate how discoverable the information you were looking for was (1-5)
- Rate how well you understood your place on the site (1-5)
- How easy was this task to complete? (1-5)
- How confident are you that the information you found is correct? (1-5)
- What on this page did you see first?
- How many steps should it take to get to this page?

Scenario 2

Online Databases

- Rate how discoverable the information you were looking for was (1-5)
- Rate how well you understood your place on the site (1-5)
- How easy was this task to complete? (1-5)
- How confident are you that the information you found is correct? (1-5)
- What information on the site led you to the Lexis Database?
- How many steps should it take to get to the database?
- Who can access the Lexis Database?

Scenario 3

CLE's

- Rate how discoverable the information you were looking for was (1-5)
- Rate how well you understood your place on the site (1-5)
- How easy was this task to complete? (1-5)
- How confident are you that the information you found is correct? (1-5)
- What information on this page did you see first?
- How many steps should it take to get to this page?

Debriefing Questions

1

Were you able to intuitively navigate the website, or did it take some getting used to?

2

Is there anything you would change with regards to finding and searching for a class?

3

Was it clear that certain databases are only accessible by visiting the HCLL in person?

4

Did you feel like there were clear paths on the site to get in contact with librarians?

Product Reaction Cards

Valuable	Reliable	Instructive	Slow
Inconsistent	Easy to Use	Insufficient	Straightforward
Cumbersome	Efficient	Intuitive	Time-Consuming
Simple	Familiar	Jargon-Filled	Simplistic
Complicated	Fast	Stupid	Technical
Confusing	Frustrating	Modern	Trustworthy
Unapproachable	Hard to Use	Outdated	Unhelpful
Discouraging	Inconsistent	Overwhelming	Useful
Distracting	Informative	Robust	Wordy

USABILITY TEST

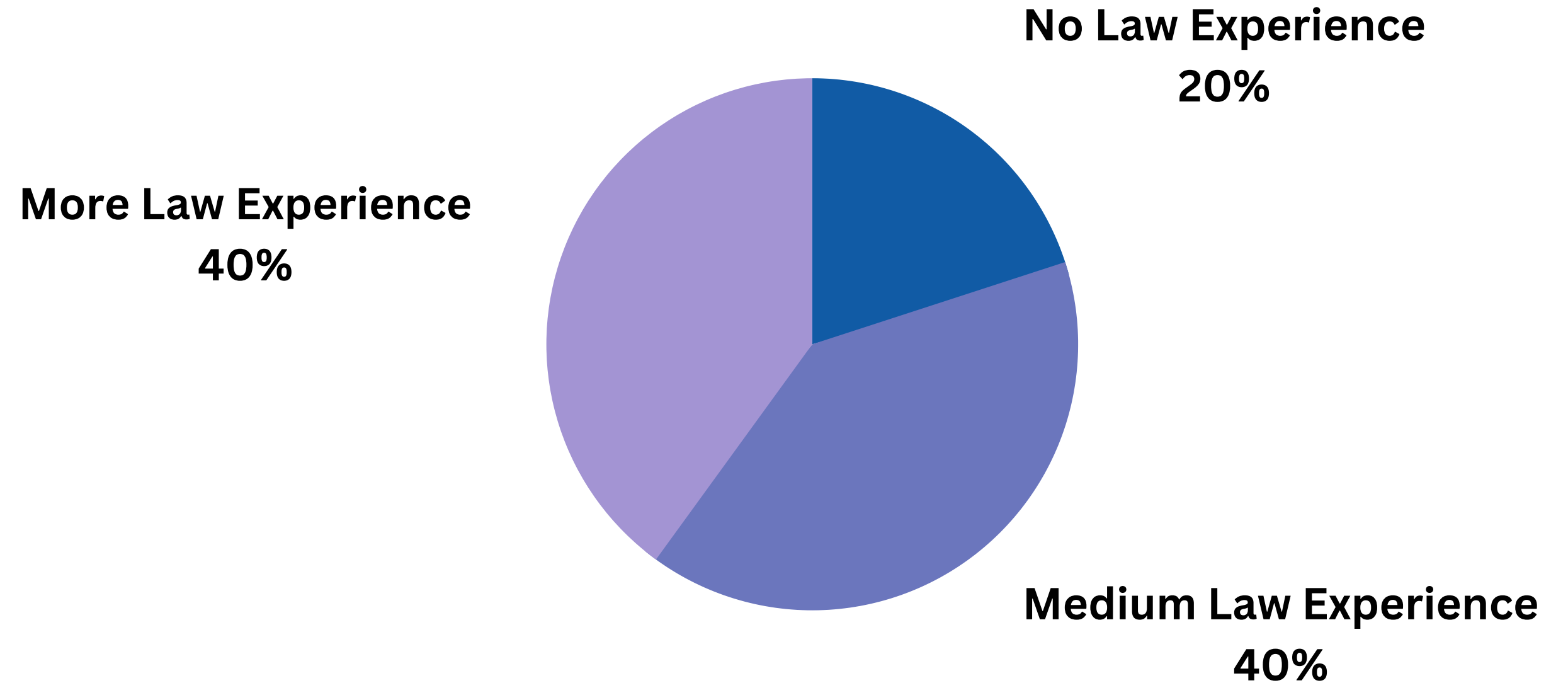
RESULTS

Background Questionnaire Findings

	Participant 1	Participant 2	Participant 3	Participant 4	Participant 5
Age?	21-29	21-29	21-29	21-29	21-29
Context in which use a computer?	Mix of work, school, & personal	Mix of work, school, & personal	School	Mix of work, school, & personal	Mix of work, school, & personal
Attitude toward technology?	I like to use technology, but I'm no expert	I like to use technology, but I'm no expert	I like to use technology, but I'm no expert	I like to use technology, and I'm pretty good at it	I like to use technology, and I'm pretty good at it
How often use computer?	Nearly constantly	Nearly constantly	Several times per day	Nearly constantly	Several times per day
How often do you use other devices for internet?	Nearly constantly	Nearly constantly	Nearly constantly	Nearly constantly	Nearly constantly
Most commonly used internet device?	smartphone	smartphone	laptop computer	smartphone	smartphone
Comfort level with seeking out resources in community?	Comfortable	Neutral	Neutral	Comfortable	Very Comfortable
Last time physically visiting a library?	Within the last few days	Within the last few months	Within the last few years	Within the last few months	Within the last few days
How do you research topics?	Searching internet for academic texts	Searching internet for academic texts	Searching internet for academic texts	Searching internet for academic texts	Searching internet for academic texts
Attitude toward the legal system?	Neutral	Neutral	Uncomfortable	Positive	Very Positive

Our Participants Experience With Law

Our goal was to find participants that could fit into our two user categories: Novice & Expert



Although our participants experience with the law varied, they all fell into a younger age demographic. The Law Library serves anybody, so our participants do not represent a the wider Law Library demographic.

Scenario 1: About Page

Task Completion Rate



Task Completion Ease

(1-5)

5/5

Time-on-Task

(minutes)

2:51

Issues

- Was confused by our question, in terms of misunderstanding what a physical resource is
- When trying to find a reference, spent a while going over options and information
- Confusion about the content housed in the dropdown menus on the site

Quotes

“

Popular Links is so nice because it makes everything one step

“

I like that they have a dropdown menu rather than just a block of text on the site

Scenario 2: Online Databases

Task Completion Rate



Task Completion Ease

(1-5)

3.85/5

Time-on-Task

(minutes)

2:47

Issues

- Unsure if what they found was correct
- Unclear of the difference between Lexis and LexisNexis database
- Confusing to figure out who, where, & when can users access certain databases
- Organized in a way that makes it hard for users to locate information on both the databases

Quotes

“

It shouldn't take so many clicks to figure out that you can only access it in person

“

Is Lexis different from LexisNexis?

“

Definitely could have gotten into a frustration loop looking for Lexis Database

Scenario 3: CLE's

Task Completion Rate



Task Completion Ease

(1-5)

4.7/5

Time-on-Task

(minutes)

2:30

Issues

- Pre-requisite for site usage is knowledge of the Continuing Legal Education acronym (CLE)
- Ease of completion negatively correlates with low level understanding of law
- One user didn't complete task because they were deterred by clicking a video link that brought them to YouTube

Quotes

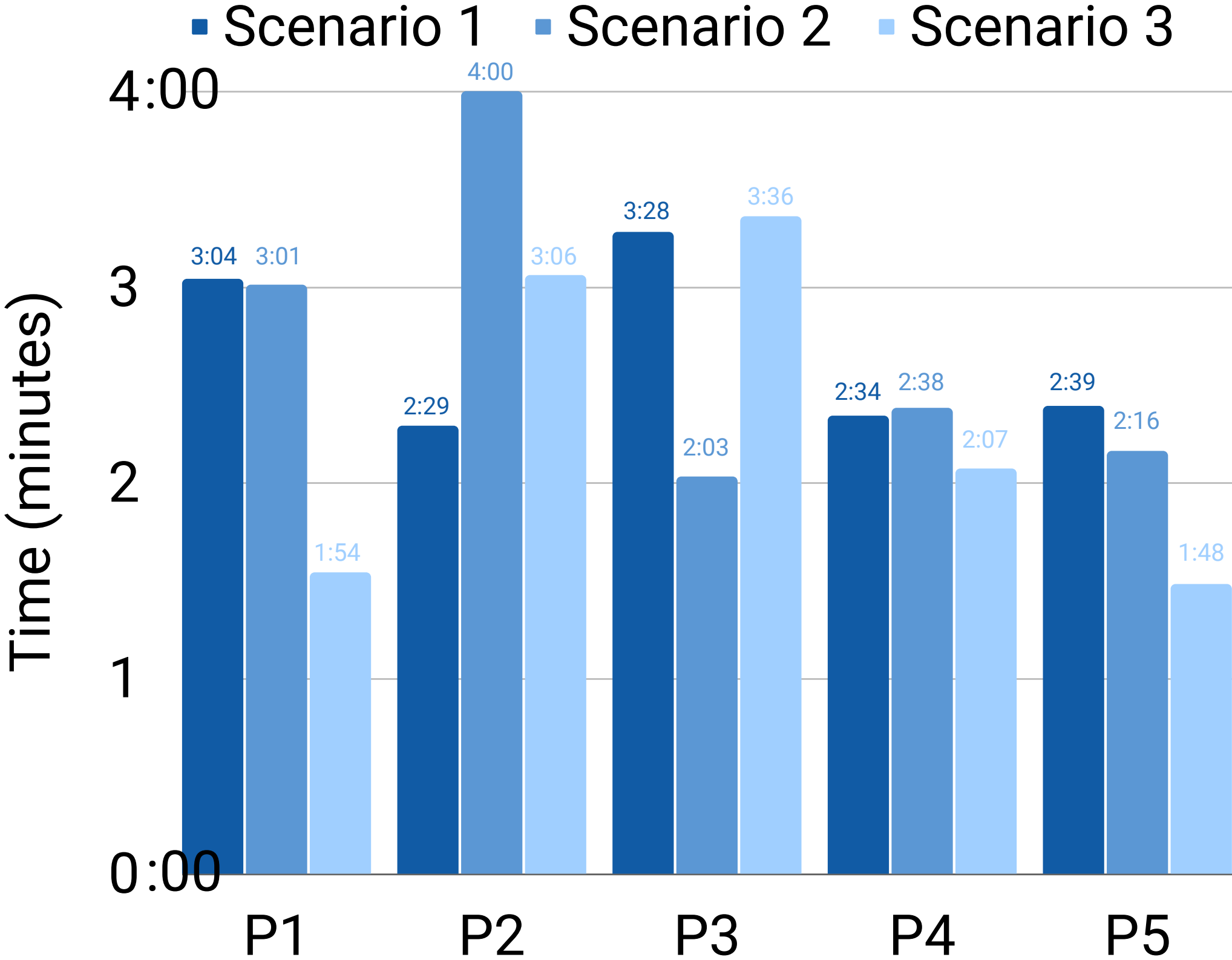
“

For classes, I would have them on their own tab

“

It's laid out clearly, it's not as mess as other law sites I've used in the past

Scenario Time Completion for Each Participant



Debriefing Interview Insights

- All participants were able to **intuitively navigate the website** due to the **large headings** that were located on each page
- All participants were **able to discover that the library has databases** and other resources that can **only be used in person**, however majority of participants thought that it was **harder to find and oddly worded**
- The **CLE page was findable**, however, the task was easier for participants that had experience with law in comparison to those who didn't, with one participant stating "the **CLE navigation button should be reworded** so those unfamiliar with the acronym also understand what the tab contains"
- All participants **could find clear paths on the site to contact a librarian**

Most Common Product Reaction Cards

Number of Times Mentioned	Word					
One Time	modern	useful	technical	outdated	jargon-filled	instructive
Two Times	trustworthy	efficient	reliable	informative	familiar	
Three Times	straightforward	easy-to-use	simple			

POST-TEST

DISCUSSION

Key Findings: Scenario 1

- 1** **The about page introduced the website format to the participants**
- 2** **The repetition of information allowed users to locate the hours and contact information quickly**
- 3** **Many users revisited the pages found and re-used what they learned in this task throughout the rest of the test**

Key Findings: Scenario 2

1

Participants were generally confused by the two similarly named databases: Lexis & LexisNexis

2

The information on how to access both databases was also unclear, with most participants having a harder time figuring out which resources were available in person only

3

The presentation of each of these resources left users confused as to what they offered and how they could best utilize them

Key Findings: Scenario 3

1

Although majority of the participants were not familiar with the term "CLE", they connected the header "CLE and other events" to the task wording "Find the course..."

2

The initial use of the acronym threw some novice users off

3

The presentation of the courses and related information was style consistent with existing web conventions, which allowed for easy navigation

Time Completion: Benchmark vs Results

Benchmark

	Scenario 1	Scenario 2	Scenario 3
Average Time Completion (minutes)	1:00	3:00	2:00

Results

	Scenario 1	Scenario 2	Scenario 3
Average Time Completion (minutes)	2:50	2:47	2:30

Post-Task Ratings: What Problem Stood Out?

Participants	Scenario 1	Scenario 2	Scenario 3
P1	5	3	5
P2	5	3	5
P3	5	4.75	3.5
P4	5	4.25	5
P5	5	4.25	5
Mean	5	3.85	4.7

Key

-  Very Easy
-  Slightly Difficult
-  More Difficult

Product Reaction Cards: How is the Site Perceived?



Answering Research Questions

1

What about the CLE page is confusing to their users, both attorney's and the general public?

2

Are users able to understand what specialized legal databases are available to them, and how they can access those databases?

3

Is the contact/hours information easily findable on each page?

The acronym "CLE" used as a header didn't significantly slow down users from finding the courses, but it can be confusing for novice users.

Users were most confused by the difference between two similarly named databases, and were further disoriented by their different accessibility requirements.

The contact and hours information is easily findable on each page.

Discussion Conclusion

How does the presentation of content on the HCLL website impact how users navigate the website, interpret the information, and apply what they've learned to seek out further resources?

It is our belief that the content on the website can at times be overly technical, which affects the interpretation and understanding of that content by users. The structure and organization of this content is its strength, however, as the users were comfortable navigating the website and were able to anticipate locations of information based on known web conventions. **These facets combine to make a website that is traversable but occasionally obtuse.**

FOR THE FUTURE

RECOMMENDATIONS

Our Top 5 Recommendations

1 **Alter headers and descriptions so the user can better understand what information they're looking for and when they've found it**

2 **Use common website conventions in a way that the user would expect to interact with them**

3 **Better clarify accessibility in terms of subscription and in person versus on site usage**

4 **Standardize page layouts to improve consistency and predictability**

Recommendation 1

Alter headers and descriptions so the user can better understand what information they're looking for and when they've found it

1. Rename "Online Research"
2. Add clear links and descriptions of each resource type to the "Online Research" page
3. Rename "CLEs and Other Events" to include "class" or "course" terminology

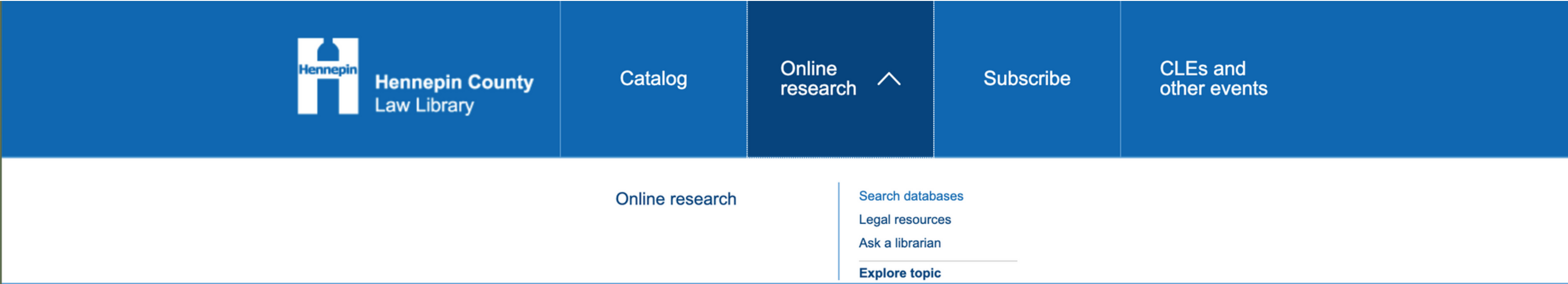
“Never assume that users will understand an abbreviation or acronym at first read. Lead with the full phrase, what it means, and why it matters before condensing it down to a shorter mnemonic” (Kaley, 2018)

*Match between system and real world
(usability heuristic #2)*

Participant Quote

“ It doesn't specify that online also is required to be in the physical library, somewhat misleading information

Supporting Data/Screenshots on what the problem was



CLEs and other classes

The Law Library sponsors a Continuing Legal Education series. We offer both live streaming and on-demand CLEs. All CLEs are free.

[Sign up for emails to receive announcements for upcoming CLEs.](#)

Recommendation 2

Use common website conventions in a way that the user would expect to interact with them

1. Rebuild search function to search website content rather than page headings
2. Remove dropdown arrow for the "Online Research" tab
3. Reformat "Online Research" page to navigate via click rather than scroll for consistency with other HCLL pages

"If your website presents these components in the same way as most other websites, then when people arrive at your site, they will know how to interact with them. When they don't need to learn new interactions, their focus will be entirely on the content, messaging, and services that you're offering." (Krause, 2021)

*Maintain consistency and adhere to standards
(usability heuristic #4)*

Participant Quote

“ [The] tabs are inviting because they're so large, the fact that only one of them is a drop down and it is such a small dropdown instantly made me feel like I wasn't in the right place

Supporting Data

Search

Results 1 - 3 of 3

Legal databases

<https://www.hclawlib.org/online-research/search-databases/legal-databases>

Remote access to online databases for law library subscribers. Westlaw and Lexis training and information.

Subscribe

<https://www.hclawlib.org/subscribe/subscribe>

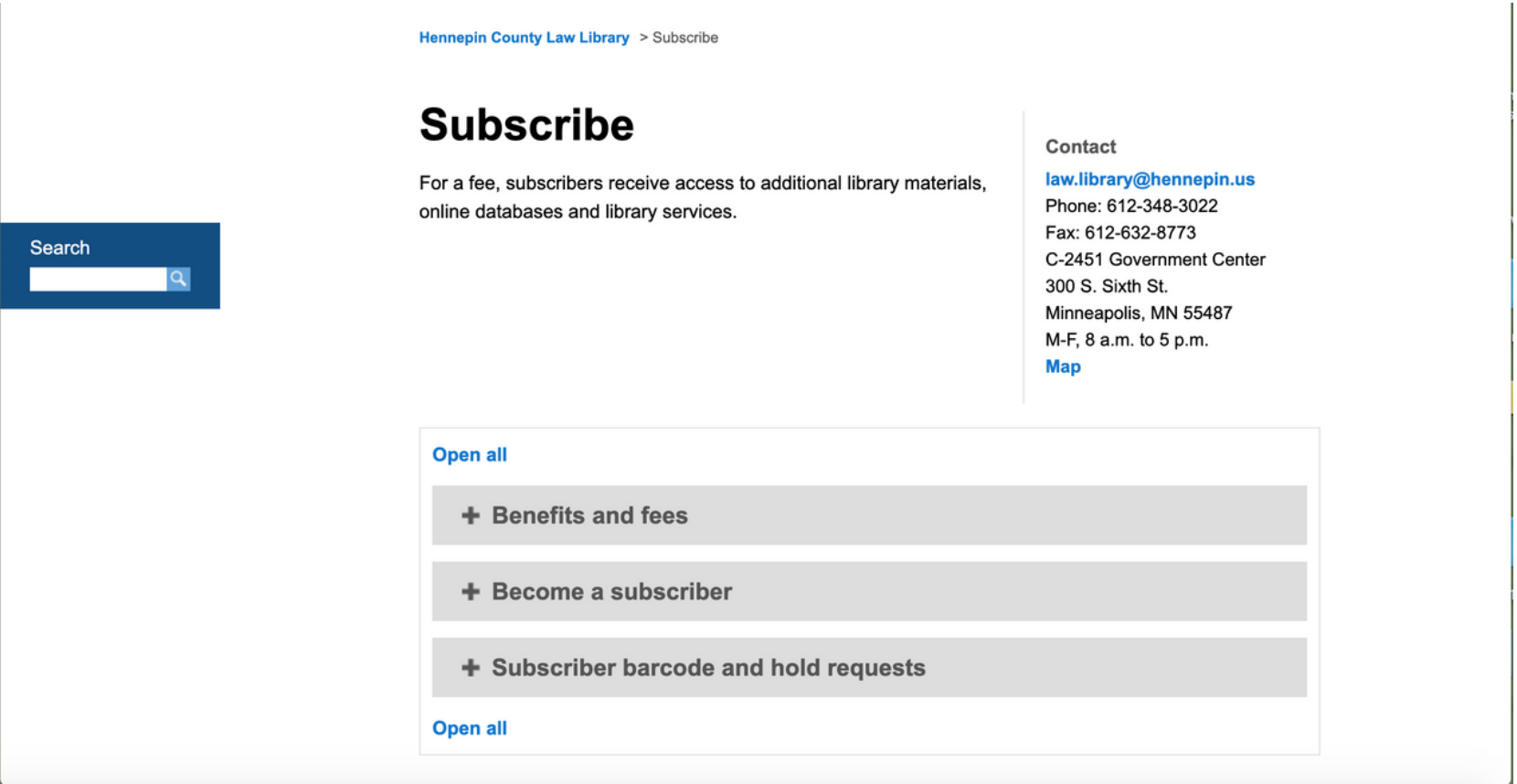
Subscriber benefits and fees, Purchase a subscription to the law library.

About

<https://www.hclawlib.org/about>

Law library hours, parking, and directions. Law library copy services, loan periods and renewals, book drop off, meeting rooms, board, mission and history.

This screenshot shows the results when searching the website for the Lexis database



The main "Subscribe" page vs the main "Online Research" page



Recommendation 3

Better clarify accessibility in terms of subscription & in person versus on site usage

1. Redesign "Online Research" main page as suggested in recommendations 1 and 4
2. Add blurb information about subscribing on the homepage
3. Conduct further usability testing to specifically target the subscriber and database portions of the website

Participant Quotes

“ [while trying to access Lexis database] "I'm not on the HCLL wifi and I'm not a subscriber so I don't think I can use this [database]"

“ Yes, [it was clear what was online vs in-person] but not as early on in the search process as I think I would've liked

[Hennepin County Law Library](#) > [Search databases](#) > Legal databases

Legal databases

All patrons may access Westlaw, Lexis and other online resources while visiting the law library.

Law library subscribers may request a barcode, which allows remote access to additional online databases from anywhere.

[Subscribe to the law library](#)

[Request a subscriber barcode](#)

Heading and description of the "Legal Databases" page

Recommendation 4

Standardize page layouts to improve consistency and predictability

1. Reformat main page of "Online Research" to match formatting of other content-related pages
 - a. Implement accordion folders
 - b. Remove background images
 - c. Include consistent sidebar
 - d. Condense the page

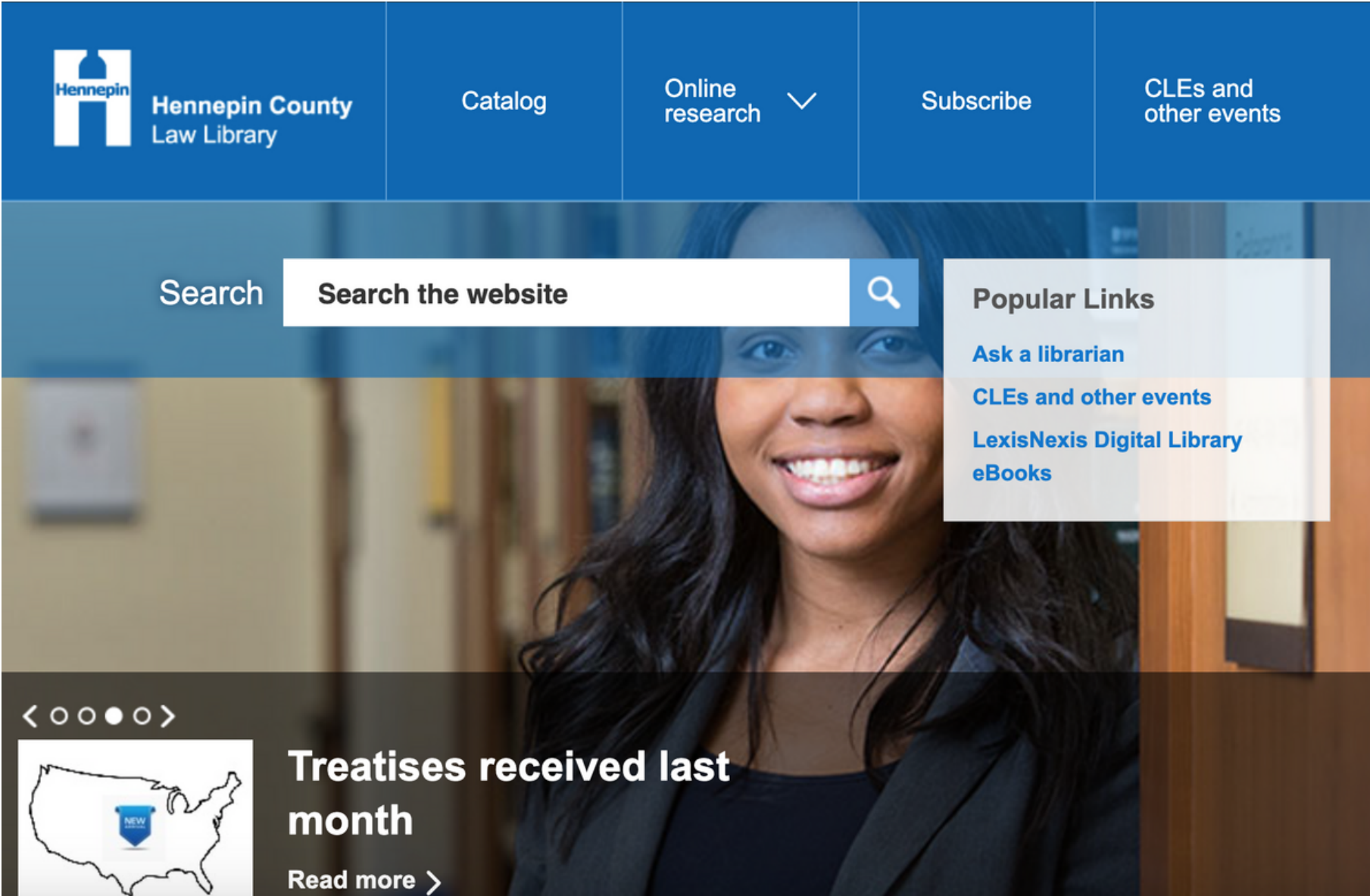
"Users should not have to wonder whether different words, situations, or actions mean the same thing"
(Krause, 2021)

*Maintain consistency and adhere to standards
(usability heuristic #4)*

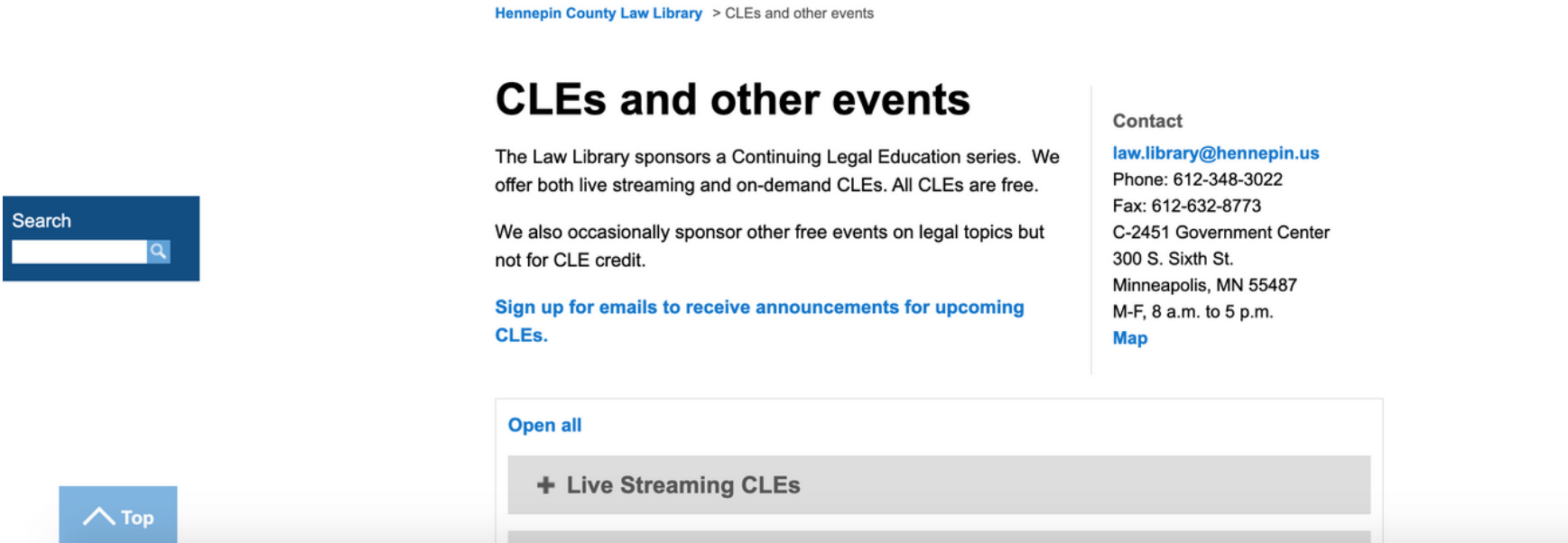
Participant Quote

“ I like that they have a dropdown menu rather than a block of text on the site

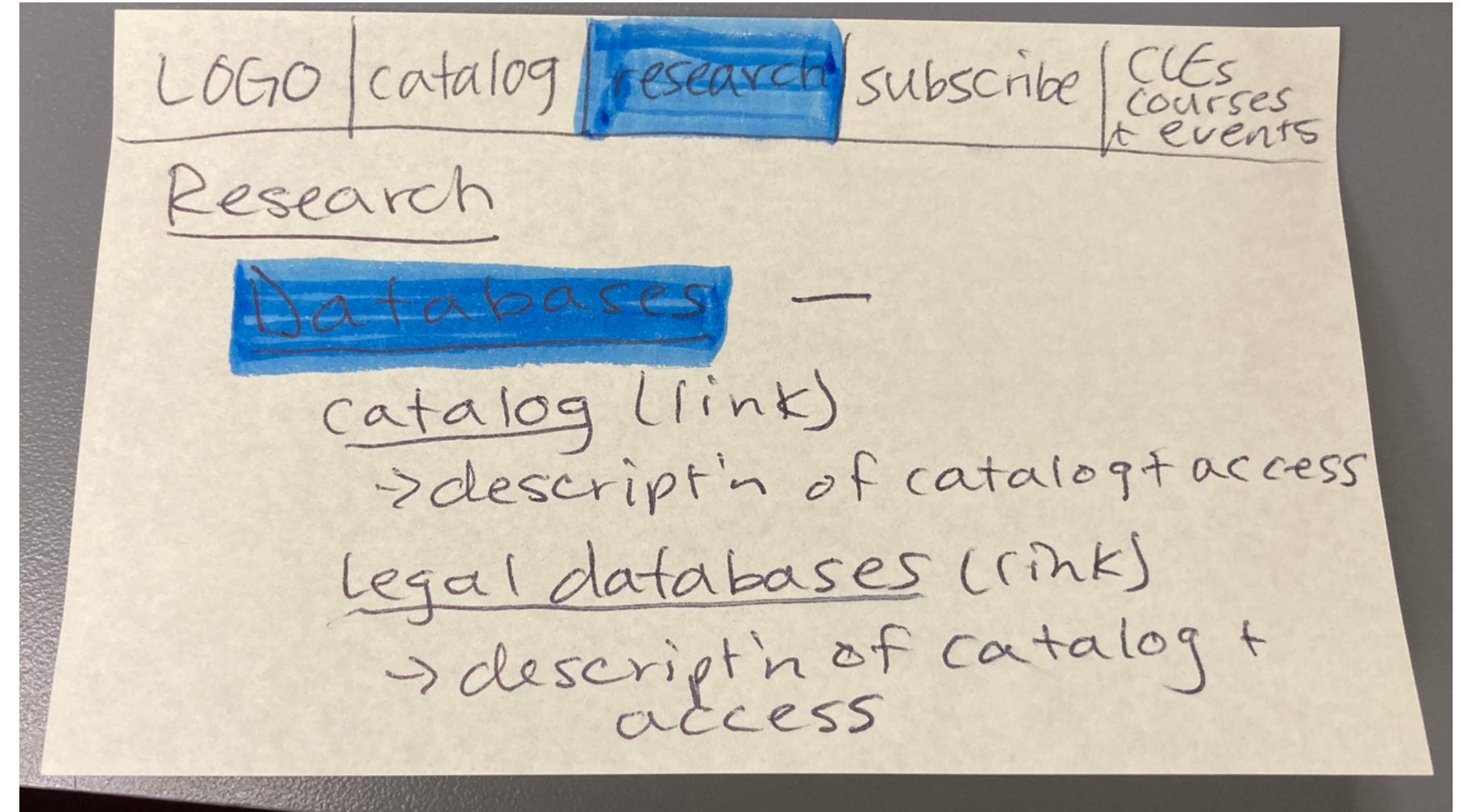
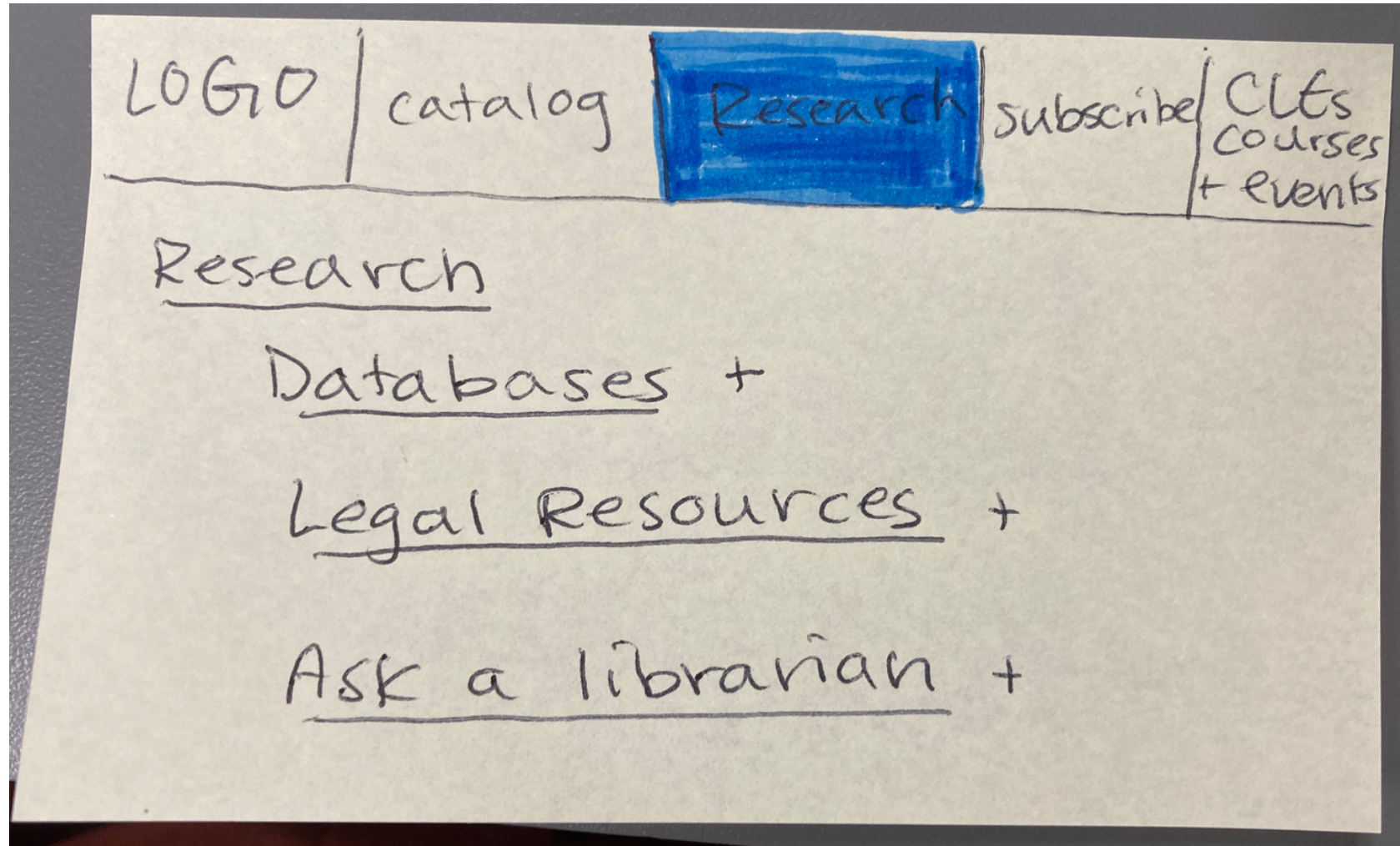
Supporting Data



Consistencies and inconsistencies between main pages



Low-Fidelity Mockups



Reimagined Online Research Dropdown

Thank You!

Some possible additional points of discussion:

1. Questions about the recommended further research?
2. Opportunities for wider pools of users to research
3. Follow-up questions on recommendations?
4. Did this usability test answer your questions and meet your goals?

If you would like to see our slides again: <https://z.umn.edu/HCLL>