

Managing Your Library's LibGuides

Conducting A Usability Study to Determine Student Preference for LibGuide Design

Julie Burchfield and Maggie Possinger

ABSTRACT

This paper discusses how the William G. Squires Library conducted a usability study on their LibGuides to identify student design preferences. The results of the study support previous research concerning best practices for LibGuide creation. This paper offers insight into how librarian-centric design hinders student success and provides suggestions for how to best develop a student-centric template design that offers consistency and increased user proficiency across all guides.

INTRODUCTION

Librarians are gatekeepers of information; ensuring that others can identify, locate, and access the information they need is at the heart of librarianship. One way that librarians assist patrons in their search for information is through the creation of LibGuides, a product offered through Springshare. Springshare's LibGuides allows librarians to easily create web content, even those librarians who cannot boast advanced technological expertise.¹ Springshare handles the technical side of web creation, making it possible for librarians to focus on creating and curating content. However, without proper oversight by librarians and established institutional procedures for creation and maintenance, LibGuides can become problematic. Research and experience have shown that while LibGuides are a powerful tool in the librarian's toolbelt, inadvertent mismanagement leads to a variety of problems. This article seeks to better define these problems and, through a reiterative usability study conducted on Lee University Library's LibGuides, will identify best practices to assist libraries in overcoming these obstacles. The usability study went through multiple adaptations, taking the knowledge gained from the previous analysis and applying that learning to the next iteration.

Why a Usability Study?

The William G. Squires Library has five faculty librarians, seven staff members, and serves approximately 4,000 students. LibGuides serve as the library's website. There is one page on the Lee University website that states the library's mission statement and provides the library's contact information. However, to access the library's "website," users must click a Continue button, which links to the library's landing page in LibGuides. Once on the library's landing page in LibGuides, users can access all the library's resources, including a link to the library catalog, links to library databases, and links to other guides that provide useful information and research aids to patrons. While the usage statistics provided by LibGuides show which guides are most often

About the Authors

Julie Burchfield (corresponding author: julieburchfield@leeuniversity.edu) is the Instruction and Distance Learning Librarian, Lee University. **Maggie Possinger** (mpossi00@leeu.edu) is an undergraduate student, Lee University. © 2023.

Submitted: April 28, 2023. Accepted for Publication: October 23, 2023. Published: 18 December 2023.

visited, they do not tell the story of how users interact with the site. To see how students are interacting with the LibGuides, the library decided to perform a usability study. The usability study provided the insight needed to establish design guidelines for reformatting existing guides and creating new ones.

The librarian responsible for the maintenance and oversight of the library's guides felt that it was critical to have user feedback before establishing a library guide template. Previously, each librarian had the autonomy to build their guides in whichever way they saw fit. The only guidelines previously put in place were that guides use a common banner for each page and common colors for boxes, backgrounds, tabs, and text. Each creator took advantage of this autonomy to produce guides that expressed their personalities and personal preferences. Some guides were wordy, providing lots of information in terms of explanation and instruction. Other guides were minimalistic, simply providing links to searches about a certain topic with little to no explanation or instruction. The terminology varied from guide to guide, and some guides used side navigation while others used top navigation. Such distributed authorship results in a lack of similarity within the created guides which can lead to confusion amongst users, rendering guides less effective and less efficient.² Conducting a usability study provided the librarians with design ideas that went beyond personal taste and were based instead on demonstrated user needs and preferences.

LITERATURE REVIEW

Background and Purpose

The purpose of a library LibGuide is to provide students with point-of-need research support.³ LibGuides allow librarians to offer research assistance outside the traditional one-shot instruction session. While LibGuides are widely used in the academic library setting, questions still arise concerning their educational effectiveness among students.⁴ Much of the research suggests that librarians who are subject specialists in their areas of expertise may not have the needed skills to translate their knowledge into student-centric designs.⁵ Each librarian creates a guide that is, by their own account, user-friendly and informational all the while failing to consider the design preferences and research processes of the student. This pattern of LibGuide creation produces library-centric creations as opposed to student-centric designs.⁶ When LibGuides are librarian-centric, fitting the organizational mental model of the librarian instead of the student, students often turn to websites that are familiar and easier to use.⁷

To create student-centric LibGuides, it is important to attempt to identify and consider the information needs and study patterns of students. Focusing on the research behaviors of the student allows for a guide design that matches the students' pedagogical needs.⁸ Past research emphasized the need to perform "qualitative and task-based user testing" to better understand how students interact with the LibGuides and what their design preferences might be.⁹ The purpose of the usability study is to provide the LibGuide creator an opportunity to understand exactly how students are maneuvering through the site and to attempt to identify problem areas for users.¹⁰ Considering the goal of the usability study, the research team placed extra emphasis on examining how students navigate both the library's LibGuide landing page as well as the different styles of LibGuide research starters.

Common Problems with LibGuides as Identified by Students

Interestingly, many student-centered usability studies fail to identify a preferred layout design. Participants from multiple usability studies provided mixed reviews when asked to identify a preferred layout.¹¹ However, the studies excel in identifying problem areas that need to be addressed.¹² Guide inconsistency complicates navigation for users.¹³ Studies have shown that students are confused by the use of library lingo on guides.¹⁴ Many LibGuides contain duplicated content, creating a bulky collection of library guides that are not necessarily unique but neither would they be considered uniform.¹⁵ Students disengage with guides that contain overwhelming amounts of information or that are not clear in their purpose.¹⁶ Statistical information shows that students do not scroll to the bottom of most pages, meaning that information located at the bottom of a page is often overlooked by users.¹⁷ The reliability and authority of the library's LibGuides come under scrutiny when students find broken links and/or out-of-date content.¹⁸

Support for Templates

One proposed solution to many of the commonly identified problems in LibGuides is to institute a template design. A template design discourages an overabundance of “words, links, images, tabs, and other visual forms that contribute to user confusion.”¹⁹ Templates ensure the use of standardized language for labeling guide content and tabs, decreasing frustration amongst users.²⁰ Requiring creators to utilize a specific layout ensures that users will become familiar with how to navigate the LibGuides, decreasing the need for the user to learn how to traverse each new page before making use of the content located therein.²¹

Establishing template guidelines for a library's LibGuides helps create uniformity across all guides and has a two-fold benefit. For students, the student-centric design of the template contributes “to its cognitive effectiveness and efficiency,” increasing student understanding and generating a greater likelihood of student success.²² For librarians, the common template allows the librarian to focus on content instead of design.²³ Librarians want students to be able to focus more purposefully on their research task instead of being further challenged by the navigation of the LibGuide.²⁴ This ideology is in alignment with cognitive load theory, which asserts that LibGuides should be as concise and intuitive as possible and, as a result, students will not have to exert extra effort in understanding how to navigate the guide itself but can, instead, focus their energies on analyzing and understanding the information provided on and through the guide.²⁵

METHODOLOGY

Participants

The only criterion for an individual to participate in the library's usability study was that the person be a current student at Lee University and that they be willing to dedicate up to one hour of their time. Participants for the study were solicited via a campus-wide advertisement campaign. Student participation was incentivized by including entrance into a drawing for a \$10 Amazon gift card. In the fall 2022 semester, 10 students participated in the usability study. In the spring semester, the Office of Undergraduate Research & Scholarship (OURS) partnered with the usability study implementation team—the librarian responsible for the oversight of the library's LibGuides and her student assistant—to offer every student who completed the study a \$10 Amazon gift card. OURS was also able to target student groups via email. This increased incentivization motivated more individuals to participate, with a total of 19 students participating in the spring semester.

To schedule appointments, students were directed to an online website called Calendly via a hyperlink or by scanning a QR Code. Calendly allowed the research assistant to schedule specific times to run the hour-long usability study. This simple website was very user-friendly, and participants could easily select an appointment slot.

Personnel and Technology

The usability study was conducted by the librarian who is responsible for the oversight and maintenance of the library's LibGuides. The librarian also had one student assistant who joined the usability study implementation team through funding provided by the university's work-study research assistant program (WRAP). Purchase of the screen recorder and video editor software Camtasia and the screen capturing software Snagit was funded through OURS, and both programs were installed on a computer located in the library's receiving room. This receiving room was separate from the main area of the library, so it provided a quiet and relatively undisturbed area within which to conduct the usability study. Large video files were shared between the usability study implementation team via Microsoft Teams. The video files consisted of the audio and screen capture of each session.

Before beginning the usability study, those directing the research participated in the Udemy course Usability Testing Boot Camp to learn more about how to properly execute a usability test. This training emphasized the typicality of using small numbers of participants in the usability test, generally about five participants within each iteration.²⁶ This style was adopted for the library's usability study, especially since the librarian conducting the usability testing had access to make immediate updates and changes to the library's LibGuides.

The librarians met prior to the start of the study to determine the "red routes," or the most common reasons students would visit and utilize the library's landing page based on questions frequently asked by students at the library's circulation and reference desks.²⁷ These red routes included reserving a study room, locating a print book, locating peer-reviewed journal articles, and identifying an applicable database for use in individual research. These key tasks were then developed into scenarios to be used in the upcoming usability test (to read the original usability tasks, see appendix A). Throughout the semester tasks were modified or dropped from the usability study. For example, if students were struggling to understand a task, the task was altered for clarity. If most participants successfully completed certain tasks with ease, those questions were eliminated from the study. All tasks and their evolutions were recorded on a Microsoft Excel spreadsheet.

Paper Prototyping and Advanced Scribbling

In addition to providing participants with tasks to be completed online, paper prototyping and advanced scribbling were used to garner student feedback about layout, design, and content. Paper prototyping refers to creating paper examples of current or potential online designs.²⁸ Advanced scribbling allows participants to provide written feedback on a paper copy of the digital design, including highlighting and annotation.²⁹ This new method was not implemented until the spring semester. Students were given a paper copy of the library's landing page along with three different colored highlighters, each corresponding to a category: important/useful, confusing, and unnecessary. Participants were asked to critique the landing page. Additionally, they were asked to provide their thoughts and comments about the landing page on a separate piece of paper. To

ensure the usability study did not last longer than an hour, a time limit was given for the paper prototyping and advanced scribbling section of the study.

Time Management

To allow time to evaluate and analyze the feedback received during the usability studies, the research team decided to conduct usability studies every other week. Therefore, the alternate weeks consisted of debriefings of past usability studies and preparation and alterations for the following week's studies.

RESULTS

Participants

Twenty-nine students participated in the usability study, with 10 participating in the fall semester and an additional 19 taking part in the spring semester. Freshmen to graduate students (see fig. 1) from a variety of majors (see fig. 2) were represented in the study. Some students self-reported having only introductory experience researching while others considered themselves advanced researchers (see fig. 3).

Figure 1. Usability study participants by classification.

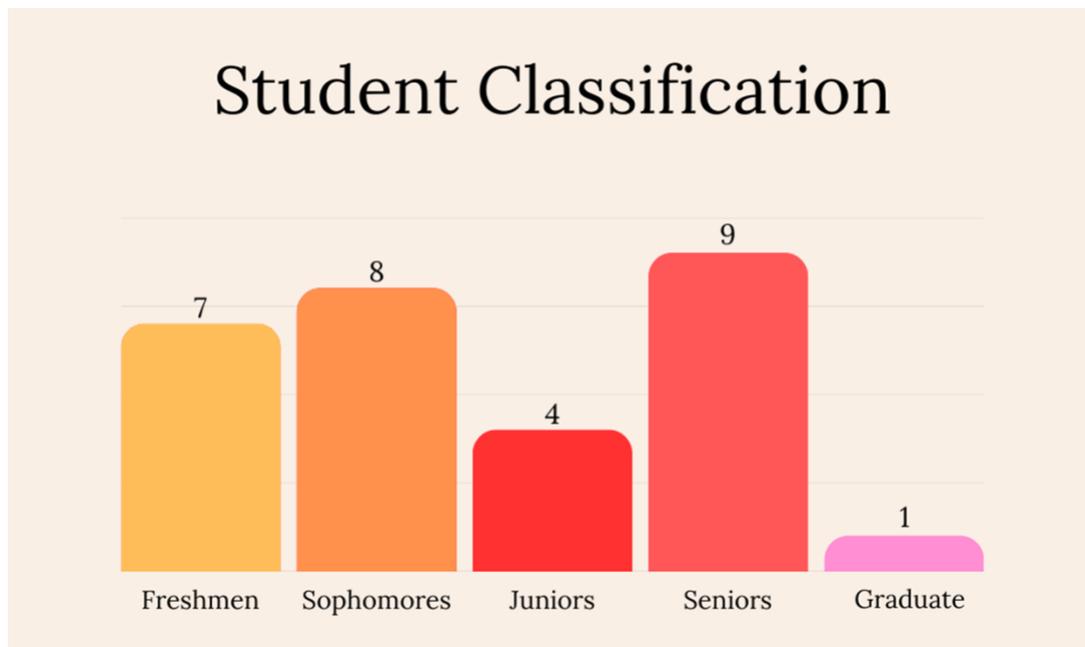


Figure 2. Usability study participants by discipline.

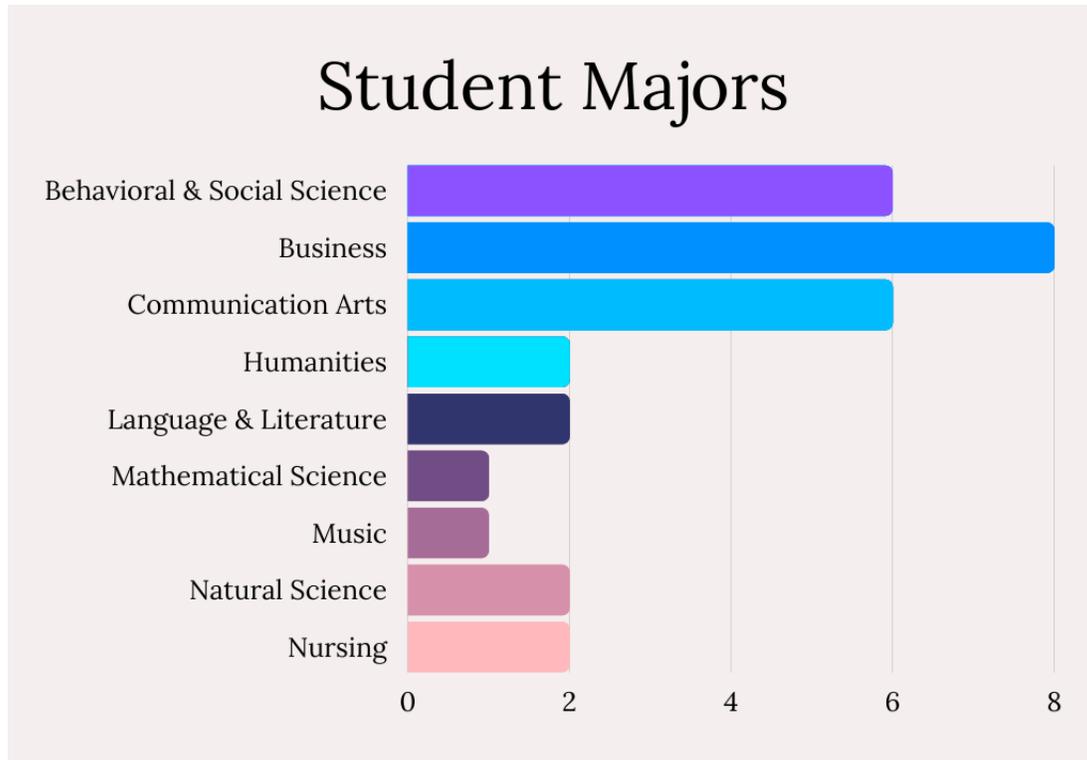


Figure 3. Usability study participants' self-assessed level of research expertise.



Standardized/Common Language

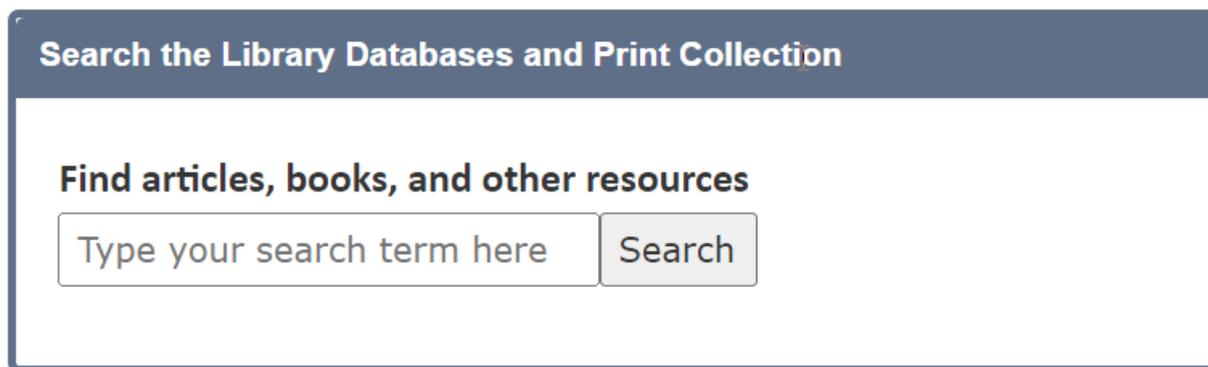
The fall usability study quickly revealed that the lack of standardized, common language on the LibGuides was an obstacle to student success. Problem areas included the language used to describe the research starters (LibGuides created to support the individual research needs of a

specific course or discipline), the library search box, and the resources available in the database A–Z list.

In library instruction sessions, students are introduced to their course’s research starter, which is the terminology that librarians consistently use to refer to these LibGuide research aids. Students found it challenging to locate the class research starters from the library’s landing page because they were placed under a tab labeled Research Help. Students did not make the connection between Research Help and class research starters. As a result, the librarians decided to be very forthcoming and label the tab Find a Research Starter. The tab was also moved up from the fifth tab to the third tab in the menu. After making this change, students were very successful in locating the research starters with all spring participants completing this portion of the task.

Another issue discovered during the fall semester included the language used on the EBSCO Discovery Service (EDS) search box located on the library’s landing page. It was not clear to student participants what purpose this search box served as most students were unfamiliar with the search capabilities of the EDS. As a result, the librarians created a more simplistic description for the main search bar. Originally titled Search the Library’s EBSCO Discovery Service, the language was changed to “Find articles, books, and other resources.” Also, within the search box, text was added to instruct students to “Type your search term here” (see fig. 4).

Figure 4. EBSCO Discovery Service search box revision.



The image shows a search box with a dark blue header containing the text "Search the Library Databases and Print Collection". Below the header, the text "Find articles, books, and other resources" is displayed. At the bottom, there is a search input field with the placeholder text "Type your search term here" and a "Search" button.

Additionally, the database A–Z list landing page was refined. The fall semester demonstrated that students did not understand what the vendor/provider tool referred to and students used the search bar incorrectly, often searching for their search term rather than a specific database name (see fig. 5). Therefore, both items were removed. To help bring more clarity, a collection of Popular Databases was added to the A–Z landing page (see fig. 6). Also, each list of subject-specific databases was tagged with top picks for the discipline of study. After these changes were implemented later in the spring semester, nine out of 10 students were able to successfully complete the task of finding a specific database.

Figure 5. Screenshot of A-Z list prior to revisions.

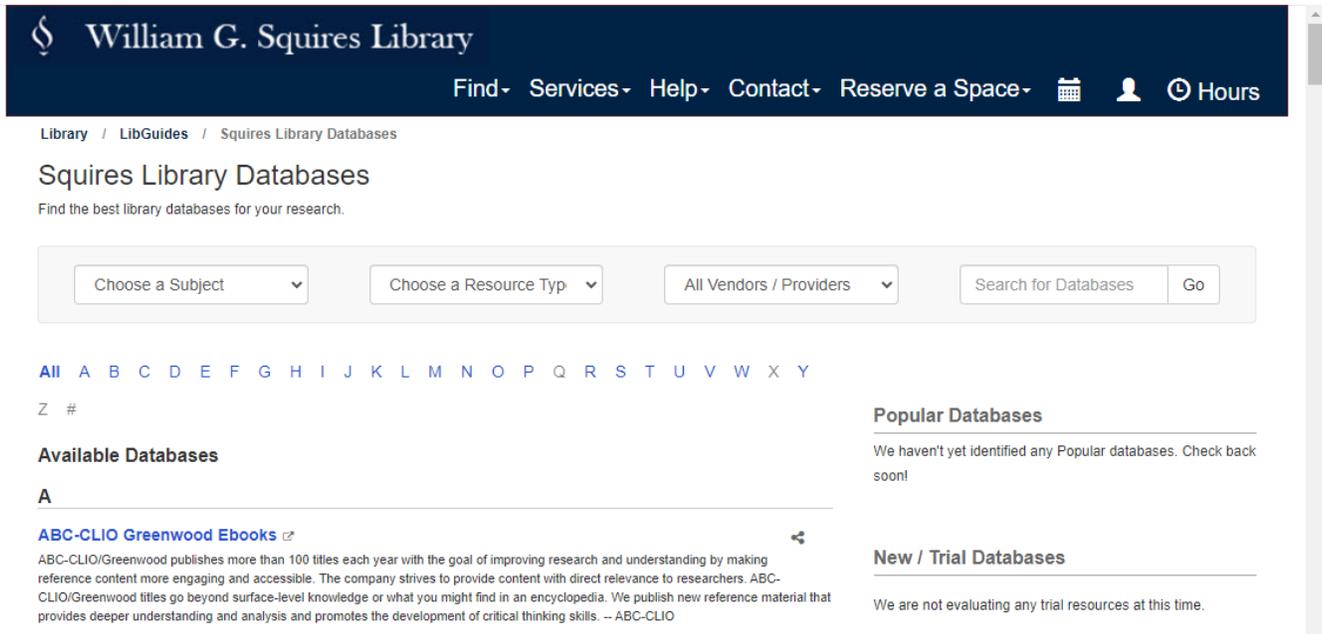
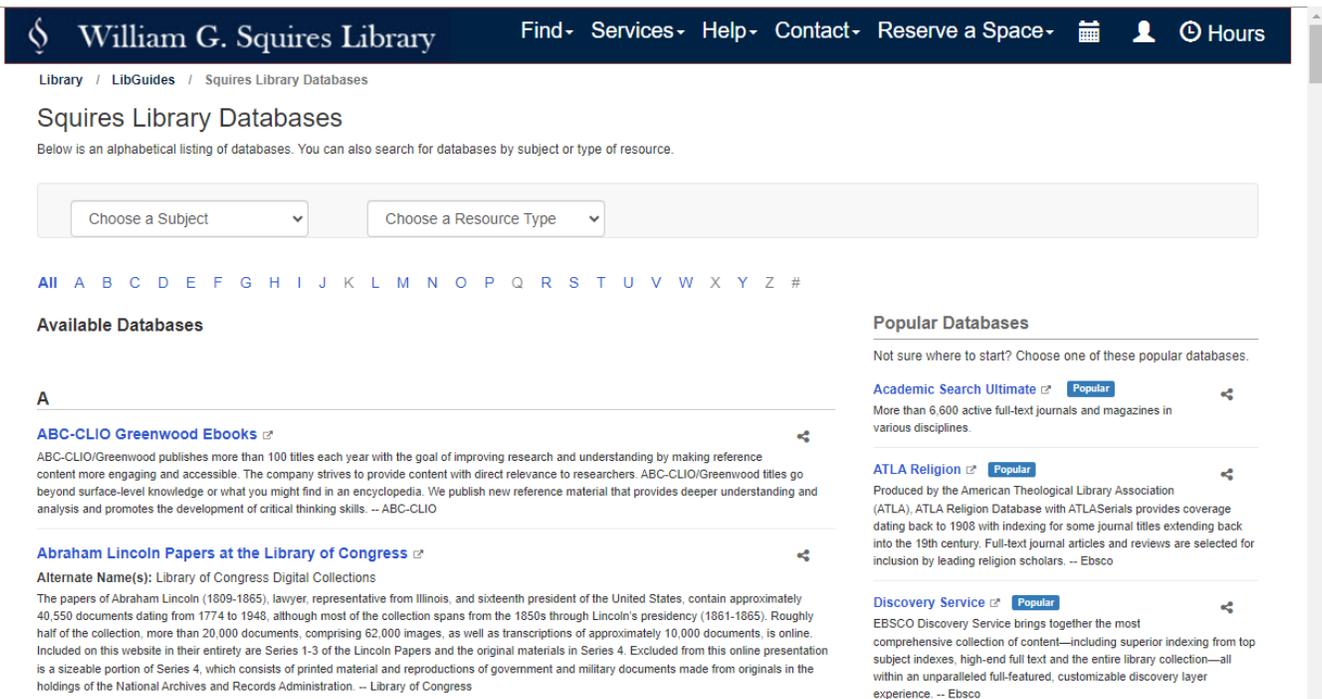


Figure 6. Screenshot of A-Z list after revisions.



Citation Help

After the fall semester, the librarians and research team recognized that finding citation help was another red route that should be highlighted in the upcoming spring semester usability test. A new task was added that asked students to locate citation help from the library landing page. Four spring usability study participants attempted the task, and all four students failed to complete the task, making it apparent that a change needed to be made. The citation tools were housed in their

own topic research starter but there was no direct link to this resource from the library landing page. As a result, a tab named Find Citation Help was added to the library landing page, directly after the Find a Research Starter tab (see fig. 7). After this addition, the success rate of students for this task was 13 of 15.

Figure 7. Updated tabs on the library landing page.



Paper Prototyping and Advanced Scribbling

One important enhancement the research team made to the spring semester usability study was adding the paper prototyping and advanced scribbling portion. This allowed the research team to review specific comments that students had about the library's landing page. The firsthand student feedback allowed the team to better understand which aspects of the library's LibGuides were important, confusing, or unnecessary. Sections of the landing page that students found important included the library hours (17/19 students), library contact information (14/19 students), Find a Book (14/19 students), Reserve a Study Room (14/19 students), Find a Database (13/19 students), Library Search Box (12/19 students), and Chat with a Librarian (12/19 students). Nine student respondents marked the library description and the library mission statement as either unnecessary or confusing, which could support the idea that students do not naturally gravitate towards long passages of text.

Determining Student Preference

The usability study quickly revealed that students struggled to effectively utilize the library's research starters. The research starters, which had been designed by different librarians, were arranged using varying layouts and included inconsistent library terminology. For the second wave of fall testing, the research team chose to focus on determining what layout was most intuitive for student use (to read the fall updated usability tasks, see appendix B). However, those tasks, though including a greater number of research starters for usability study participants to interact with, lacked any specific tactic to help determine student preference. As a result, the

research team decided to be more strategic in choosing which research starters would be included in the spring iteration of the study. All published research starters were analyzed and separated into three types. The most popular research starter—those having the greatest number of usage statistics—from each of the three categories was included in the study (to read the spring usability tasks, see appendix C). On each research starter, students were asked to locate the guide’s citation aid and perform one specialized task.

The English (ENGL) 448 class research starter had a top-navigation, two-column design, with a left-hand column of 25 percent and a right-hand column of 75 percent. The right-hand column included a tabbed box with multiple tabs. When asked to search for a specified topic, students easily read and found the corresponding labeled tab (16/19 participants were successful). A list of databases was housed in the left-hand column. This list of databases also included a link to the MLA citation aid. While participants noted the list of databases, they did not realize that the citation aid was also included in that list. Therefore, the research team made a change in the middle of the spring semester to reconcile this issue. Instead of placing the MLA citation aid under databases, they separated this into its own box labeled Citation Help. As a result, students were more easily able to locate the link to the citation aid.

The Exercise Science (EXSC) 225 research starter had a top navigation layout, with each page including a single tabbed box in the top column, with videos underneath in three evenly spaced columns. The top navigation style coupled with the tabbed box resulted in each page having two rows of horizontal navigation menus. When students arrived at this research starter, they often responded with “woah,” “wow,” or simply “oh.” These responses indicated that students were overwhelmed by the way the information was organized in the guide. When given specific items to find on the page, such as the APA citation aid, students were able to locate the information from the top navigation menu.

This guide did not include a list of applicable databases but rather included links to searches about specific topics. When students were provided with a general task to complete, such as finding a resource on a topic that was not listed verbatim on the research starter, students were less successful in completing the task (only 12/19 students).

The Digital Media (DIGM) 200 research starter had a side navigation layout. When asked to search for a specified topic, most students did not see that exact topic listed on one of the side navigation tabs but chose instead to utilize the databases listed on the landing page to find an applicable resource. Watching students attempt to locate information on the DIGM 200 guide showed the research team that students did not notice the side navigation features nor the large accordion tabs that were found in the main box of the starter. However, they regularly made use of the list of discipline-specific databases located on the research starter landing page.

To conclude the usability study, each participant was asked which of the three class research starters they liked the best or found the easiest to navigate (this question was added later in the spring semester). Several participants asserted that the [ENGL 448](#) starter was the easiest to use (see fig. 8). The research team thought that perhaps there was a bias in the answers because the ENGL 448 guide was the first guide that the participants interacted with. Therefore, the research team rearranged the order the research starters were introduced. The ENGL 448 guide continued to be singled out as the most efficient layout for a research starter (9/15 students).

Figure 8. Screenshot of the ENGL 448 research starter.

William G. Squires Library Find- Services- Help- Contact- Reserve a Space- Hours

Library / LibGuides / Research Starter - ENGL 448 / Modern Literature

Research Starter - ENGL 448: Modern Literature

Enter Search Words Search

Modern Literature

Citation Help

MLA Citation Help
Find resources to help you cite your research according to MLA Style.

MLA Style Help
MLA HANDBOOK

Start Your Research

Databases Approaches Literary Critical Theory Modernism (Literature) Tips for Searching Biography Additional Resources

Academic Search Ultimate [↗](#)
More than 6,600 active full-text journals and magazines in various disciplines.

EBSCO
Academic Search Ultimate

Gale Literary Sources [↗](#) [↗](#)
An integrated research experience, Gale Literary Sources brings together Gale's premier literary databases in a new digital environment that allows researchers, faculty and students to search across these resources to discover and analyze content in entirely new ways. No other publisher offers this unmatched combination of uniquely rich literary content, dependable metadata, and intuitive subject indexing - all enriched by features and design that breathes new life into the study of literature. As Gale makes additional Literary Resources available through Gale Literary Sources, and if your library has access to these products, they will be automatically added to the Gale Literary Sources experience upon release.

GALE
Gale Literary Sources

JSTOR [↗](#)
We help you explore a wide range of scholarly content through a powerful research and teaching platform. We collaborate with the academic community to help libraries connect students and faculty to vital content while lowering costs and increasing shelf space, provide independent researchers with free and low-cost access to scholarship, and help publishers reach new audiences and preserve their content for future generations. -- JSTOR

JSTOR

DISCUSSION AND RECOMMENDATIONS

The research team did not identify a preference among students between top navigation and side navigation, though students' ability to locate resources showed that the information located on the tabs inside the tabbed boxes was more readily found by students than information located on the side navigation tabs. The research team noticed that students prefer images, icons, and very brief and concise explanations. Lengthy descriptions were identified by students as cumbersome and unnecessary. Students did not respond well to overwhelming amounts of information in a guide. Student responses during the study expressed a desire for clean and simplistic designs, minimal tabs, concise information, guides that did not require scrolling to see all the information, and most importantly, consistency.

The most important thing that was learned through this study was that consistency is key to student success. Repeatedly students would express confusion as to why each new guide they were shown was different from the previous ones. Having struggled to identify where resources were located on the first guide tested during the study, students often vocalized frustration over having to figure out where everything was located all over again. Having to relearn how to use the resource that is supposed to be helping them in their research adds too much stress to the student's cognitive load and makes library resources more of a hindrance to student success than an asset.

Limitations

Finding students who were willing to donate their time to participate in the study was difficult. Even with the incentive to be entered into a drawing for a \$10 gift card, students were reluctant to give up an hour of their time. As a result, library student assistants who were not scheduled to work at the circulation desk were sometimes pulled from their shelf reading duties to participate in the study. It was not until the spring semester, when the campus OURS offered to provide every participant with a \$10 gift card, that students began to willingly sign up to be involved in the study. Had the head researcher pursued greater fiscal backing in the fall semester, even more students who were not library employees could have been included in the overall study. For future researchers, it is recommended to acknowledge the need for and secure financial support for funding the usability study prior to the onset of the research.

The research team quickly noticed that many of the fall student participants understood how to make a room reservation, and as a result, this task was quickly dropped from the study. In addition, the task that asked students to locate a specific book by title was eliminated since all participants were able to complete this task easily and successfully. In hindsight, the research team realized that a large portion of the 10 fall participants were library student assistants. This overabundance of library student assistants in the usability study was a direct result of low student participation in the fall semester. Since the participants who were library assistants were overall more familiar with the library's website and its basic capabilities, it is probable that some of the results collected in the fall semester were slightly skewed. The research team recommends that future researchers take into consideration the users' background and training and how this may impact their ability to successfully navigate a website.

Further Research

When asked to describe their research habits, four of the 19 spring usability study participants reported that they did not use the library's website or resources at all, and seven reported using the library's website and resources but only as a secondary source to Google and/or Google Scholar. Eight participants reported using the library as their exclusive or main source for research (see fig. 9).

Interestingly, of those eight who reported using the library as their exclusive or main source for research, six reported having attended a library instruction session as part of their coursework at the institution. Only two participants who reported having attended a library instruction session did not use the library as their main source for research. Of the 11 students who had not attended a library instruction session, nine reported using the library as a secondary resource or not using the library at all for their research (see fig. 10).

For future research, it would be valuable to study the impact of library instruction on the research habits and preferences of students. Future studies could focus on identifying any correlation between library instruction and increased library usage or greater self-efficacy in utilizing the library's resources.

Figure 9. Usability study participants’ self-reported research habits.

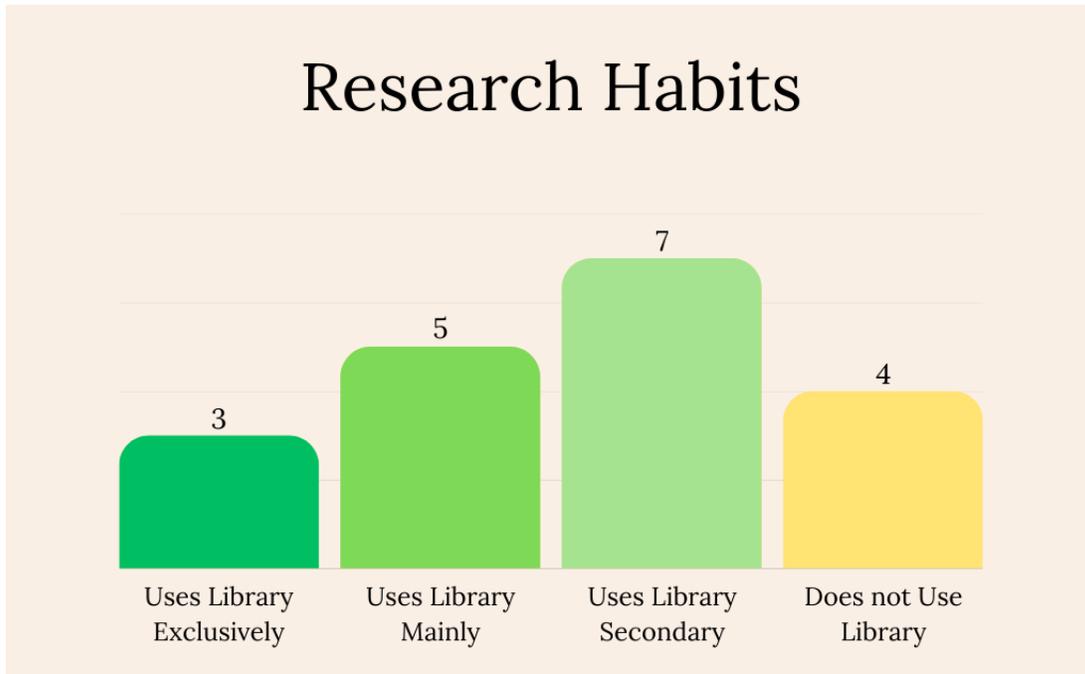
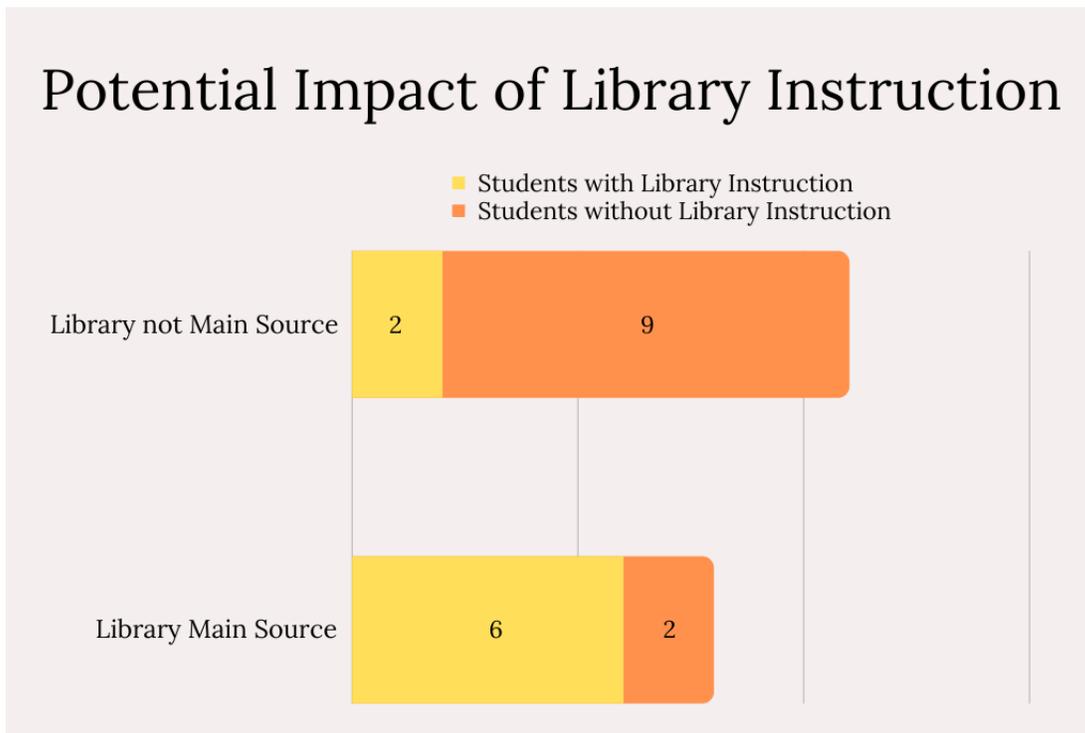


Figure 10. Potential impact of library instruction.



APPENDIX A: ORIGINAL USABILITY TASKS

At the beginning of the fall semester, students were given the following set of tasks:

1. You are a business student looking for a quiet place to study. Book a private library space for two hours next week.
2. You are a theology student writing an exegesis on the Gospel of John. You need to use the book titled *The Gospel of John: A Theological Commentary*. Find the call number for this work.
3. You are in HIST 493 and need to find articles for an upcoming paper. Find and provide the title of 1 peer-reviewed, academic journal article about the topic of the Roman Republic.
4. You are a student in ENGL 110 and are writing an argumentative paper. Your professor mentioned a library research starter, which will provide topic ideas and resources for writing your paper. Find this research starter and choose a “Hot Topic” from the list provided.
5. You are a communications major in COMM 353. You are assigned a research project and need to find the library databases. Locate your course’s research starter and find the section where the most helpful databases are listed.
6. In your music history class you are tasked with researching solo guitar music. Using the MUHL 212 library research starter, locate the resources provided to aid in your research.
7. Your History 211 class requires lots of research, but luckily your professor mentions the library research starters. They provide databases focused on American history. For a project, you need to find reliable and scholarly resources. Locate the research starter for your course and find the databases your professor keeps mentioning.

APPENDIX B: FALL UPDATED USABILITY TASKS

During the middle of the fall semester, after tasks were altered, eliminated, or added, these were the new set of tasks:

1. You are in HIST 493 and need to find articles for an upcoming paper. Find and provide the title of 1 peer-reviewed, academic journal article about the topic of the Roman Republic.
2. You are a student in ENGL 110 and are writing an argumentative paper. Your professor mentioned a library research starter, which will provide links to relevant databases. Find this research starter and choose a topic by using the databases provided.
3. You are an English major taking ENGL 448. You are assigned a research project and need to find articles about Modernism in Literature. Locate your course's research starter and find useful articles about your topic.
4. In your exercise science class, you are tasked with researching exercise equipment. Using the EXSC 225 library research starter, locate an eBook about your topic.
5. Your Digital Media class requires you to research a prominent broadcast event from U.S. media history. Your group has chosen to research the television program "The Twilight Zone." Use the class research starter, DIGM 200, to find academic journal articles about your topic.
6. As a Sports Management major you must take Sports Law – PHED 404. You have to research employment law as it applies to sports management. Find resources about your topic.

APPENDIX C: SPRING USABILITY TASKS

1. You have to write a paper on the topic of the Roman Republic. Without doing anything, and without looking at the library's homepage, what would be your first step in completing this paper?
 - a. Now, just looking at the page would any of the information provided to you on the library's homepage help you accomplish that first step?
 - b. Using the library's homepage, find and provide the title of 1 resource about the topic of the Roman Republic. Tell me when you feel you've been successful.
2. Now once you've found a source for your paper about the Roman Republic, the next step would be citing this source. Just by looking, is there any information provided to you on the library's homepage that would help you accomplish this task?
 - a. Now, using the library's homepage, find out how to cite a source according to APA style. Tell me when you feel you have been successful.
3. When researching a topic for your theology class, it's easier to use a database dedicated to subjects solely about religion. Find the database titled ATLA Religion, a source containing information curated by leading religion scholars. Tell me when you feel you've been successful.
4. The library has research starters that are designed to help students complete research for their class projects. Using the information provided on the library's homepage, will you please try to locate those research starters? Tell me when you feel you've been successful.
5. Next we are going to take a look at three different research starters found on the library's website. Please open each of the following class research starters in a different tab.
 - a. DIGM 200
 - b. ENGL 448
 - c. EXSC 225
6. You are a student in Exercise Science 225. After diligently creating your References page, your professor says you have a formatting error. Locate the APA 7th edition formatting guide to help fix the error. Tell me when you feel you've been successful.
 - a. Now, you have been assigned the task of writing a research paper about the benefits of exercise. Find a source, a book, or an article about your topic.
7. A friend in your Intro to Digital Media class asks how your References page is always perfectly formatted. You tell him that you use the library's online resources. Please show your friend where they can find the MLA 11th edition citation guide. Tell me when you feel you've been successful.
 - a. You have chosen to research the communication theory Media Imperialism. Using the class research starter find a source to support your research about this topic.
8. You have a works cited page that you made using EasyBib. However, you want to make sure the citations are correct. Find where you can double-check the formatting of your sources according to MLA 11th edition. Tell me when you feel you've been successful.
 - a. As a student in ENGL 448 you have been assigned the task of writing a research paper about Modernism. Find a source, a book, or an article, about your research topic using the class research starter.
9. Was there a certain research starter layout that you liked the best or found the easiest to navigate?

ENDNOTES

- ¹ Suzanna Conrad and Christy Stevens, “‘Am I on the Library Website?’ A LibGuides Usability Study,” *Information Technology and Libraries* 38, no. 3 (September 1, 2019): 49–81, <https://doi.org/10.6017/ital.v38i3.10977>.
- ² Courtney McDonald and Heidi Burkhardt, “Library-Authored Web Content and the Need for Content Strategy,” *Information Technology and Libraries* 38, no. 3 (September 1, 2019): 8–21, <https://doi.org/10.6017/ital.v38i3.11015>.
- ³ Sarah Thorngate and Allison Hoden, “Exploratory Usability Testing of User Interface Options in LibGuides 2,” *College & Research Libraries* 78, no. 6 (September 1, 2017): 844–61, <https://doi.org/10.5860/crl.78.6.844>.
- ⁴ Nora Almeida and Junior Tidal, “Mixed Methods Not Mixed Messages: Improving LibGuides with Student Usability Data,” *Evidence Based Library and Information Practice* 12, no. 4 (December 1, 2017): 1–16., <https://doi.org/10.18438/B8CD4T>.
- ⁵ Amy E. G. Barker and Ashley T. Hoffman, “Student-Centered Design: Creating LibGuides Students Can Actually Use,” *College & Research Libraries* 82, no. 1 (January 1, 2021): 75–91, <https://doi.org/10.5860/crl.82.1.75>.
- ⁶ Yolanda Bergstrom-Lynch, “LibGuides by Design: Using Instructional Design Principles and User-Centered Studies to Develop Best Practices,” *Public Services Quarterly* 15, no. 3 (January 1, 2019): 205–23, <https://doi.org/10.1080/15228959.2019.1632245>.
- ⁷ Barker and Hoffman, “Student-Centered Design,” 75–91.
- ⁸ Christopher Chan, Jennifer Gu, and Chloe Lei, “Redesigning Subject Guides with Usability Testing: A Case Study,” *The Journal of Web Librarianship* 13, no. 3 (January 1, 2019): 260–79, <https://doi.org/10.1080/19322909.2019.1638337>.
- ⁹ Almeida and Tidal, “Mixed Methods,” 3.
- ¹⁰ Almeida and Tidal, “Mixed Methods,” 1–16.
- ¹¹ Chris Neuhaus et al., “To the Side, To the Side: Academic Libraries and LibGuide Layout Adoption,” *Reference Librarian* 62, no. 3–4 (January 1, 2021): 207–20, <https://doi.org/10.1080/02763877.2021.1986876>.
- ¹² Almeida and Tidal, “Mixed Methods,” 1–16.
- ¹³ Bergstrom-Lynch, “LibGuides by Design,” 205–23.
- ¹⁴ Isabel Vargas Ochoa, “Navigation Design and Library Terminology: Findings from a User-Centered Usability Study on a Library Website,” *Information Technology and Libraries* 39, no. 4 (December 21, 2020): 1–15, <https://doi.org/10.6017/ital.v39i4.12123>.

-
- ¹⁵ Judith Logan and Michelle Spence, "Content Strategy in LibGuides: An Exploratory Study," *The Journal of Academic Librarianship* 47, no.1 (January 1, 2021): 1–11, <https://doi.org/10.1016/j.acalib.2020.102282>.
- ¹⁶ Thorngate and Hoden, "Exploratory Usability," 844–61
- ¹⁷ Ochoa, "Navigation Design," 1–15.
- ¹⁸ McDonald and Burkhardt, "Library-Authored," 8–18.
- ¹⁹ Barker and Hoffman, "Student-Centered Design," 77.
- ²⁰ Bergstrom-Lynch, "LibGuides by Design," 205–23.
- ²¹ Thorngate and Hoden, "Exploratory Usability," 844–61.
- ²² Thorngate and Hoden, "Exploratory Usability," 844.
- ²³ Almeida and Tidal, "Mixed Methods," 1–16.
- ²⁴ Thorngate and Hoden, "Exploratory Usability," 844–61.
- ²⁵ Aaron Bowen, Jake Ellis, and Barbara Chaparro, "Long Nav or Short Nav?: Student Responses to Two Different Navigational Interface Designs in LibGuides Version 2," *The Journal of Academic Librarianship* 44, no. 3 (May 1, 2018): 391–403, <https://doi.org/10.1016/j.acalib.2018.03.002>.
- ²⁶ David Travis, "Cargo-Cult Usability Testing and Why 5 Users Are Enough," in the Udemy course Usability Testing Boot Camp, video, 11:23, last updated April 2021, <https://www.udemy.com/course/usability-testing/>.
- ²⁷ David Travis, "Red Routes and How to Identify Them," in the Udemy course Usability Testing Boot Camp, video, 11:05, last updated April 2021, <https://www.udemy.com/course/usability-testing/>.
- ²⁸ Almeida and Tidal, "Mixed Methods," 64.
- ²⁹ Almeida and Tidal, "Mixed Methods," 65.