Exploring the Expectations and Preferences of Health Sciences Library Subject Guides Users

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Abstract
Using survey methodology, this study aimed to explore and describe health sciences library users’ subject guide expectations and preferences. Respondents showed an overwhelming lack of familiarity with the guides and expressed a preference for quick and easy access links as the most important feature. Most respondents also appeared to want some guidance about which resources to use within the guides, but less extensive learning or instructional content. The results of this study will inform both future guide development and research on best practices.

Keywords
Academic libraries; health sciences libraries; subject guides; user research

Introduction
It is common for libraries to maintain some sort of online guide presence. Many libraries, and academic libraries, in particular, use the LibGuides system from Springshare to create such resources. As the evolutionary successors of print pathfinders, these guides are intended to provide self-directed instruction and resources at all times and can be accessed independently, without having to engage with library staff.

There is a general consensus in the library literature that guides are most effective when they are appropriately tailored to the information needs of their target users. However, creating and maintaining such guides takes considerable time and energy. As such, it is imperative that libraries reflect on and critically evaluate their guides to ensure they are both understanding and meeting these needs.

Usage statistics alone provide an incomplete picture when attempting to understand user expectations and motivations, as they only address the question of “if” the guides are
used, but not “why” and/or “how” users might approach them. This study sought to better understand the underlying and foundational beliefs that users hold of health science subject guides in order to inform their development. The author approached the topic from this vantage point with the thinking that, before addressing more specific usability and design questions, one must first understand the audience that is being targeted. In addition, from the author’s review of the literature, much of the relevant subject guide research came from general academia. As such, this study aimed to view subject guide use through the lens of a health sciences library.

**Literature review**

Previous literature has discussed the development of online subject guides, both within and outside of the LibGuides platform context. Much of this research focuses on usability concerns and the development of best practices or standards through either user feedback or case studies, and several common themes emerge.

Several studies have noted that users often find guides to be cluttered or messy, with one student even describing certain guides as making them “feel dizzy” due to the overwhelming amount of content and poor organization and design. These users cite too many tabs or pages included in a guide, as well as an unnecessary number of resources and long page lengths that require excessive scrolling. Baker observed that current guides frequently appear to utilize a “kitchen sink” approach, noting that “as satisfying and efficient it may seem to us as librarians to centralize resources in an organized framework, the subject guides can be too broad in scope or provide so much information that students become frustrated and confused.”

To solve these issues, researchers have recommended that guide creators limit the number of tabs or pages included in guides, as well as work to more effectively “curate” the content and only include the most important resources. Keeping annotations brief and to-the-point can help reduce page lengths and keep guides easily scannable. In addition, narrowing the overall scope of a guide can help keep the essential information needed more manageable.

In addition to being cluttered or overwhelming, users have also noted that guides can be confusing. Language and navigational structures used across guides from a single institution may be inconsistent or unclear, meaning that users must re-learn or re-orient themselves each time they access a guide. Developing standards or templates can help build a feeling of consistency and unity.

The use of unfamiliar language or library jargon has also been cited as a barrier. Unfortunately, the terms librarians typically use to describe resources may have no practical meaning to the users. As such, care must be taken to ensure that familiar terminology is used to describe research processes and resources.

Little also addressed many of these usability concerns within the framework of Cognitive Load Theory. This instructional theory is based on the idea that “learning happens best under conditions that are aligned with human cognitive architecture.” Different types of
cognitive load are then broken up into intrinsic, extraneous, or germane, with extraneous being those pieces that are ineffective and have the result of distracting from or negatively impacting learning. By addressing many of the concerns brought up in usability testing, Little suggested that guide creators can effectively reduce the extraneous cognitive load associated with their guides and ideally convey more meaningful information to the users.\(^7\)

Bergstrom-Lynch expanded on this work by connecting guide design to three different potential educational frameworks: behaviorism, cognitivism, and constructivism, and then using the ADDIE model (Analysis, Design, Development, Implementation, and Evaluation) to build a set of working best practices that align user-centered principles with learner-centered theories.\(^13\) Within the Development stage, many of the same usability themes emerged, including avoiding too many tabs and too much text, eliminating redundancies, limiting content to only the “essentials,” avoiding jargon, using action verbs, and keeping navigation/terminology consistent. However, they also warned that just because a guide or other learning product is usable, does not necessarily mean it is useful, and they suggested shifting the focus to building guides that are both user-centered and learner-centered.\(^13\)

In addition to these usability concerns, some researchers have attempted to take a step back and consider how subject guides figure into the “mental models” of their various user groups. The theory of mental models stems from human-computer interaction research, and they are described as a form of “sense-making” by users which can then inform system design.\(^14\) Essentially, these are the underlying ideas or preconceived notions that users may hold about what a subject guide is and how they are supposed to use or engage with it.

Reeb and Gibbons posited that “students lack a mental model that includes subject guides, while librarians have a mental model that supports their value and purpose.”\(^8\) Based on prior usability testing, they found that students had difficulty connecting subject guides with their needs and often did not use guides unless they were prompted to at the beginning of the task. This finding was confirmed by Ouellette when they found that “students do not use subject guides.”\(^3\) Through their discussion, Reeb and Gibbons also suggested ways in which to make guides more contextual and relevant, such as using understandable language, ensuring multiple entry points, and providing guide access at a course rather than subject level.\(^8\)

Through a card sorting study, Sinkinson et al. sought to first understand the mental models their students held in relation to subject guides, including what they perceived as useful and how they thought a guide should be organized, and to then compare these mental models with those of the librarians who created the guides.\(^4\) From this study, they found that students preferred guides that were organized by their research need rather than by resource type. They also noted that undergraduate and graduate students differed in what types of information they wanted or expected to find, with graduate students having a much more narrow or focused approach. Meanwhile, undergraduate students displayed difficulty eliminating necessary items from the guides, while simultaneously commenting that the guides were cluttered and overwhelming, indicating a “lack of clarity about what resources undergraduate students feel they need.”\(^4\) This disconnect illustrated that the needs of these groups and their varying research experience levels may bely a need for guides tailored to or flexible for adapting to different user need levels.
Librarians on the other hand appeared to hold a more rigid and library-centric view of the research process and associated guides. However, librarians also recognized that their perspective was likely different than the student-users by making comments such as, “Should I be thinking of this as a research guide for my research or for what I think students would like?”

Castro Gessner et al. also sought to better understand the intersection between user and creator mental models in relation to subject guides. Through a series of interviews with guide creators, they learned that many saw the guides as either a teaching tool, a surrogate for librarian assistance, or a container for resources. However, they also discovered that despite the significant time investment required to create and maintain subject guides, many creators were unaware of how their users might actually engage with or use the guides. The strongest motivation they cited for creating the guides was based largely on “faith that LibGuides were used and useful for the intended purposes.”

Though they did not explicitly call it “mental models,” Carey et al. also sought to compare how different student groups may interact with guides, specifically within a health science setting. In their survey, they found that different academic levels had varying guide awareness and experience, with upper-level students showing more familiarity and usage. They also examined the awareness and usage between several health science disciplines, with Physical Therapy having the highest rates.

Taken together, these publications illustrate the importance of basic usability principles in guide design, but also that usability is not the only facet of guide development that needs attention. Ensuring that guides are created with an underpinning of educational and learning theory also plays an important role to ensure that users are not overwhelmed and cognitively maxed-out. Finally, taking that step back to investigate how users understand subject guides is an imperative first phase. Guides can be as beautiful and well-designed as possible, but if users do not hold a mental model that supports their use, they may still never access it.

**Setting**

The Ohio State University is a large public university in Columbus, Ohio, and home of the Ohio State Wexner Medical Center. The Health Sciences Library (HSL) serves the students, faculty, and staff of five health science colleges (Nursing, Dentistry, Public Health, Optometry, and Medicine, including the School of Health and Rehabilitation Sciences), as well as the administrative and clinical staff of the Wexner Medical Center.

Based on enrollment reports and information obtained from Human Resources, the estimated total user population of the HSL at the time of the survey was approximately 29,000 unique users.

**Methods**

The author developed an exploratory survey to collect information on user expectations and preferences of health science subject guides and to investigate whether there is any variation between students and practicing clinicians in how they engage with the guides.
A draft was shared with two library colleagues for feedback and suggestions prior to its launch, as well as with a nurse known personally to the researcher, to ensure that it was not hampered by library jargon and would make sense to non-librarians. A research study protocol and Institutional Review Board (IRB) application were submitted, and the study was determined to be exempt from IRB review by the Ohio State University Office of Responsible Research Practices. The survey was exploratory in nature, so no formal validation process was conducted. Information included in this report was guided by both the CHERRIES (Checklist for Reporting Results of Internet E-Surveys) and CROSS (Checklist for Reporting of Survey Studies) survey reporting guidelines.16,17

The anonymous survey was administered to a convenience sample of HSL users via the Qualtrics platform (Qualtrics, Provo, UT).18 The survey was open for 4 weeks from February 15, 2021 until March 15, 2021. Invitations and reminders were distributed on behalf of the author by “communicators” within the health sciences through a variety of university health science listservs and intranet postings targeting students, faculty, and staff. Participation was voluntary, and no incentives were provided. All members of the HSL user community were eligible to participate. In the event that someone who is not part of the core HSL community saw the invitation, they were not prevented from completing the survey even though they were not a targeted group.

The survey consisted of predominantly multiple-choice questions, with participants answering between 14 and 21 questions, dependent on how they answered specific items. There was no randomization or alternating of question order, other than those changes that were built into the survey flow.

All participants began with a standard set of questions regarding their prior use of both the library and the subject guides. Depending on their prior experience with the guides, participants were then routed into one of two paths. For those who may not have been familiar with the library terminology of “subject guide,” respondents were also provided an image of an example subject guide for reference.

Those with prior guide experience (“guide users”) were first asked a series of questions related specifically to the last time they used a guide, followed by questions related to their overall expectations and preferences of the guides in general. Those who did not have prior experience using the guides (“guide nonusers”) were first asked a short series of questions related to why they had not used them, followed by questions related to their overall expectations and preferences of a hypothetical “library subject guide” that paralleled the guide user expectation questions.

All respondents finished the survey with a standardized block of basic demographic questions, including their role and their college or department affiliation. The full survey instrument is available in Appendix A.

Prior to viewing the first block of questions, participants were presented with an online Informed Consent form that was required before entering the official survey. Those who did not agree to the Informed Consent were routed out of the survey to a message thanking them for their interest. Participants were also asked to confirm that they were 18 years or older.

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before proceeding. Though the target survey population was most likely adults, the survey was sent out to some undergraduate health science listservs, which could technically contain underage members. If a participant answered No to this question, they were also routed out of the survey.

No identifiable information was collected. Anonymity was maintained by also using the Anonymize Responses feature in Qualtrics, which removes IP address and geographic location collection. Incomplete surveys were set to delete after 4 hours of inactivity. As such, if someone began the survey but then decided not to finish it for any reason, their partial answers would not be recorded.

Analysis was performed within Qualtrics using their built-in StatsIQ tool. Descriptive statistics were used to summarize answers for most questions. StatsIQ also allows users to relate items in order to look for statistically significant relationships, and this feature was used for select questions. The tool automatically suggests appropriate statistical tests based on the items being analyzed, such as Chi-Squared Tests.

Results

A total of 206 completed responses were collected. It is not known precisely how many individuals may have seen the invitation due to the varied communication methods used; however, using the total HSL user population as a basis, this represents an approximate 0.7% response rate.

The largest responding group was graduate or professional students (73, 35.4%), followed by faculty (51, 24.8%) and undergraduate students (39, 18.9%). The College of Nursing and the School of Health and Rehabilitation Sciences were the highest responding disciplines, with 54 (26.2%) and 53 (25.7%) responses, respectively. See Table 1 for a full summary of participant demographics.

The majority of respondents (173, 84.0%) had used the HSL or its resources in the past; however, almost the same number (172, 83.5%) had not used the HSL Subject Guides previously, leaving 34 participants who had used the guides. The guide users indicated it was largely in their capacity as either a graduate/professional student (13, 38.2%) or a faculty member (10, 29.4%). The most common purpose of their last use was in support of a course assignment, either completing it as a student (10, 29.4%) or developing it as an instructor (5, 14.7%). A little more than half (18, 52.9%) of these respondents indicated they found the guide on their own through the HSL website, and the majority (29, 85.3%) found the information they were looking for on the guide.

Among the 172 guide nonusers, the majority (156, 90.7%) had not been aware of the guides prior to taking the survey, but many of these respondents indicated that they were either extremely likely (17, 10.9%) or somewhat likely (74, 47.4%) to use them in the next year, now that they were aware of them. From the 16 guide nonusers who were aware of them before taking the survey, the most commonly cited reasons for nonuse were that they had not worked on a project where they thought the guides were needed and/or the guides did not occur to them as a resource at the time.
Both guide users and nonusers were asked a series of parallel questions regarding their overall expectations and preferences of the guides. For those without prior guide experience, they were asked to answer based on what they imagined a “library subject guide” might be like. The first three questions related to what types of information they expect to find on a subject guide (Figure 1), what might motivate or influence them to seek one out (Figure 2), and what they considered the overall purpose of a guide (Figure 3). These questions allowed respondents to mark multiple options; as such, totals shown exceed 100%. The final question asked participants what they considered to be the most important feature of a guide, and respondents were limited to only selecting one option (Figure 4).

All 34 guide users indicated that they typically used a desktop or laptop computer to access guides and resources. Among the 172 guide nonusers, 148 (86%) primarily used a desktop or laptop computer, only 7 (4.1%) indicated they typically use a tablet and 2 (1.2%) a phone. Fifteen (8.7%) guide nonusers indicated that they do not use library resources.

To investigate whether there were any perceivable differences or trends between students and practicing clinicians, respondents were placed into 3 groups using the “bucket” feature of StatsIQ. Undergraduate and graduate/professional student responses were combined to represent Student Users as a whole; those who had identified as hospital clinical staff were designated as Clinical Users; all others were then combined as Other Users. These three overarching groups were compared in regard to four different questions: prior guide usage (all respondents), prior guide awareness (nonusers), most important feature (nonusers), and technology (nonusers). Based on the variables being related, StatsIQ ran Chi-Squared analyses for these items, but no statistically significant relationships were found.

**Discussion**

Due to the low response rate, generalizable conclusions cannot be drawn from the results. However, as the survey was exploratory in nature, some themes and interesting trends were identified to help inform future research directions.

**User experience**

As evidenced by the responses of both guide users and nonusers alike, guide design and user experience are of high importance. Both groups rated *Quick and Easy Links* as the single most important feature of a guide. This finding is in line with previously noted research that shows users desire guides to be clear and easy to scan.

**Subject guide content**

Guide nonusers appeared to give mixed messages in terms of the content they imagined within a hypothetical subject guide. When asked about the type of information they expected to find, *Information to Learn About a Topic* received the highest number of responses; however, when asked about the purpose of a guide, they ranked *Self-Directed Learning About Research* third. Similarly, they considered the ability to *Learn On My Own* the least important facet of a guide, with only 32 (18.6%) marking this option. Based on these responses, it appears that patrons may look to subject guides as a place for some pointers or simple guidance, but not as more extensive educational objects where they can engage...
in asynchronous learning. This incongruence between the information expected, the overall purpose, and the most important facet of a guide may be influenced by this group’s lack of practical experience with the guides. Without having more concrete examples or experience using a guide, respondents may have been unsure of what was truly meant by the different answer options.

Guide users displayed a similar disparity, though it was not as stark as the guide nonusers. This group prioritized Access to Resources in both the expected information and the overall purpose questions. However, their second-place expectation, to find learning information, dropped slightly when asked about the overall purpose of a guide. It is possible that these disparities may have been caused in part by unclear language in the answer options. Though thematically similar, the choices provided in the expected information and overall purpose questions were phrased slightly differently, which respondents could have then interpreted in a way other than intended or anticipated.

The one type of content that both guide users and nonusers appeared to agree was of least interest was technical or instructional how-to information. Within both the expected information and overall purpose questions, this theme was ranked the lowest by both groups. Though this type of information may still be useful to collect in a guide, which library staff can easily post to answer specific questions, it may not be a desired or motivating element for users to seek out a guide.

Subject guide awareness

The lack of subject guide awareness among survey respondents was quite high. This finding, though disappointing, was not surprising, as previous studies have also found a general lack of awareness of guides among their populations.\textsuperscript{3,15} Despite this lack of prior awareness, this group was still able to provide valuable insight into what they imagine a guide could be like and importantly what might influence them to use one. When asked about what might motivate them to use a subject guide, guide nonusers ranked a suggestion from a professor/mentor/supervisor/peer the highest. This finding suggests that promoting guides to these groups may be the most effective, with them then suggesting the guides on behalf of librarians.

Attempting to find library advocates is not a new tactic for promoting library services or guides in particular.\textsuperscript{3} However, perhaps targeting guide advertising to these groups in a more concerted effort may be helpful. Working to build out the mental models of this small sub-group may be easier than attempting the build the mental models of all users simultaneously.

Technology preferences

One surprising result was the overwhelming use of desktop or laptop computers when accessing library resources. Through anecdotal experience, the HSL has hypothesized that users access resources more and more through mobile devices such as tablets and/or phones; however, the survey responses did not align with this hypothesis. There are a variety of reasons that could explain this discrepancy that would warrant further study. For example, it is possible that since students were the largest responding group, and they typically use
library resources when completing homework or other assignments, they might prefer to work on more fully featured technology. There is also a question of whether clinical staff would show the same technology preference, or perhaps make more use of mobile devices while working on the unit. In future research, the author plans to investigate the needs and preferences of clinical users more closely and will perhaps be able to suss out more details and data.

Clinical users

There was a disappointing lack of clinical user responses to the survey that made a comparison of clinical and student users futile, effectively nullifying the second research objective. There are multiple reasons why this lack of clinical response may have occurred. It is possible that the communication channels that were used to invite participants to the survey were not ideal for clinical users. Invitations for this audience were primarily contained within larger newsletter emails, or as a posting on an internal message board. As such, the survey invitation and reminder may have been effectively buried.

Clinical users may have also not considered this survey as “for them.” Many users struggle with understanding what subject guides are, but the author hypothesized that clinical users, in particular, may view these as “academic” resources intended for students. As O’Dell and Preston summarized in their article on library nonuse by hospital staff, several studies have found that clinical users cite either an “ignorance of service,” “not having a need,” and/or a “perceived bar on access” as preventing them from utilizing library resources. As such, clinical users may have seen a general invitation as not truly intended for them, and thus disregarded it. Targeted interviews and/or focus groups with clinical users are planned for the future to further investigate this research question.

Limitations

Though this study helps to answer some questions about how users view and use subject guides, there are still limitations that must be acknowledged. As noted previously, the overall response rate was very low in relation to the total HSL user population, which significantly hampers any attempt to make inferences about the meaning of the collected data.

Users were asked to self-report their role within the university, as well as their department. To allow statistical comparison between groups, participants were limited to only selecting one role and one department. However, the HSL user community is a complex one, with some users potentially holding dual-roles within multiple departments. As a result, the actual make-up of the respondent pool may be slightly different than what was reported, including a possible impact on the true clinical user response rate.

It is also possible that non-HSL community users may have participated in the survey. There was nothing built into the survey to prevent this, and so it is possible that some outside users could have seen the invitation and chosen to participate. However, the possibility that this greatly affected the results is likely small, as only two respondents were not able to find a traditional HSL community department with which to report affiliation.
The invitations were general and sent out on listservs, rather than a more targeted sampling procedure. As such, respondents self-selected to participate and may have held a bias towards either the subject guides or the library itself. More than 80% (173) of respondents indicated that they have used the HSL or its resources; however, the author would posit that 80% of the entire HSL community has not likely used the library, and so these answers may have been skewed towards library users.

The use of survey methodology can be limited by unclear language, which can lead to potential misunderstanding or misinterpretation of questions and answer options. Focus groups or interviews can potentially avoid these pitfalls, and such future research is planned to complement the results of this study.

Conclusion

In conclusion, this survey has provided valuable insight into the underlying thoughts, preferences, beliefs, and expectations that HSL users hold of library subject guides. Though most did not have direct experience using the guides, they were still able to provide feedback on what this term conjures up and what might motivate them to seek out a guide in the future. By working to understand the basic expectations and preferences of their users, librarians can hopefully build guides that better meet these expectations. As noted by previous researchers, librarians must recognize and actively work against their own professional biases about what is important in a guide and how a guide should be designed in order to effectively create guides that users want to use and find helpful. By working towards guide development that is taken on thoughtfully and critically, they can help ensure that they are not relying solely on “faith,” but on the evidence that they so frequently advise their users to look for.

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Data availability statement

Participants of this study did not agree for their data to be shared publicly, so supporting data is not available.

Appendix A. Survey instrument

Introduction Block

Have you ever used the Health Sciences Library (HSL) or its resources?

- Yes
On average, how frequently do you access resources through the Health Sciences Library (HSL), either physically or online?

- Never
- 1–3 times a month
- 4–6 times a month
- 7–10 times a month
- 10+ times a month

What types of library resources do you use or access the most? (select up to 3)

- Print Books
- Electronic Books
- Databases
- Electronic Journal Articles
- Other Online Resources (e.g., streaming videos, virtual anatomy resources)
- Bones and Models
- Study or Work Space
- Other (please describe)
- I don’t use library resources

To the best of your knowledge, have you ever used one of the HSL’s Subject Guides? If you are unsure, there is an example image of a subject guide below for your reference.

- Yes (Respondents routed into the Guide Users path: Last Time Used & Expectations)
- No (Respondents routed into the Guide Nonusers path: Previous Knowledge & Expectations)

**Subject Guide Users—Last Time Used**

For the following questions, please answer them based on the last time you remember using an HSL subject guide.

Thinking about the last time you used a subject guide, what was your role?

- Undergraduate Student
- Graduate/Professional Student
- Academic/University Staff
- Hospital Clinical Staff
• Hospital Administrative Staff
• Faculty
• I don’t remember
• Other (please describe)

Thinking about that same time, what type of project or question were you working on that prompted you to use the subject guide?

• Completing a Course Assignment (as a student)
• Developing a Course Assignment (as an instructor)
• Working on a Capstone, Thesis, or Dissertation Project
• Working on a Clinical Ladder Project
• Working on a Clinical Research Project
• Working on a Basic Science Research Project
• Working on a Quality Improvement Project
• Working on an EBP Project
• Finding Information for Direct Patient Care
• I don’t remember
• Other (please describe)

Thinking about that same time, how did you find or access the subject guide?

• I was directed to it by my professor/supervisor/mentor
• I was directed to it by a librarian or other library staff member
• I found it on my own through the Health Sciences Library webpage
• I found it on my own through Google or another search engine
• I used the Library Link in my Carmen Course page
• I had used it before, so I returned to it
• I don’t remember
• Other (please describe)

Thinking about that same time, what technology did you use to view the subject guide?

• A desktop or laptop computer
• A tablet
• A phone
• I don’t remember
Thinking about that same time, were you able to find the information you were looking for on the subject guide for this particular project?

- Yes, I was able to find all the information I needed on the subject guide
- No, I never found what I was looking for on the subject guide
- Sort of, I found some of the information I was looking for on the subject guide, but not everything I wanted/needed
- I don’t remember

**Only presented to those who answered No or Sort of**

Please describe the information you had hoped to find on the subject guide for this particular project, but it was missing.

- Free text box

**Subject Guide Users—Expectations**

For the following questions, please think about the HSL subject guides in general.

What technology do you typically use to view the subject guides or other library resources?

- A desktop or laptop computer
- A tablet
- A phone

What kind of information do you expect to find on a subject guide? (select all that apply)

- Links to library resources for quick access
- Suggestions about which resources are best to use
- How-to instructions on using library resources effectively
- Information to learn more about a topic (e.g., systematic reviews, EBP, citations)
- Other (please describe)

What influences or motivates you to seek out a subject guide from the library? (select all that apply)

- I expect the library to provide this type of information and look for it
- My professor/supervisor/mentor-peer suggesting a guide to me
- I do not use a guide unless I am told that it is required for my project
- A librarian telling me about a guide
- Other (please describe)

I think the purpose of a subject guide is to … (select all that apply)

- Provide me with access to resources
• Provide me with guidance about which resources to use
• Provide me technical instructions on how to use particular resources (e.g., nuts and bolts, how-to information)
• Provide me with self-directed learning about how to perform research (e.g., tutorials, resources, or information about different topics)
• Other (please describe)

What is most important to you when using a subject guide?
• Quick and easy links to resources
• Guidance or suggestions about which resources to use and how to use them
• Being able to learn on my own, without having to contact the library

What do you find most helpful about the HSL subject guides?
• Free text box

What do you find least helpful about the HSL subject guides?
• Free text box

What would you suggest the HSL could change to improve its subject guides?
• Free text box

Subject Guide Nonusers—Previous Knowledge

What technology do you typically use to access other library resources?
• A laptop or desktop computer
• A tablet
• A phone
• I don’t use library resources

Prior to taking this survey, were you aware that the Health Sciences Library had subject guides on different topics?
• Yes
• No

**Only presented to those who answered Yes**

What has prevented you from accessing or using a subject guide in the past? (select all that apply)
• I wasn’t sure what they were or what information they might have
• I have not worked on a project where I thought I needed them
• My professor/supervisor/mentor told me what resources to use
• They didn’t occur to me as a resource when I was working on a project
• Other (please describe)

**Only presented to those who answered No**

Now that you are aware of the subject guides, what do you think the likelihood is that you might use one in the next year?

• Extremely likely
• Somewhat likely
• Not very likely
• Extremely unlikely
• Not sure

Subject Guide Nonusers Expectations

For the following questions, please answer them based on what you imagine a “library subject guide” might be like.

What kind of information would you expect to find on a subject guide? (select all that apply)

• Links to library resources for quick access
• Suggestions about which resources are best to use
• How-to instructions on using library resources effectively
• Information to learn more about a topic (e.g., systematic reviews, EBP, citations)
• Other (please describe)

What might influence or motivate you to seek out a subject guide from the library? (select all that apply)

• I expect the library to provide this type of information and would look for it
• My professor/supervisor/mentor/peer suggesting a guide to me
• I would not use a guide unless I was told that it was required for my project
• A librarian telling me about a guide
• Other (please describe)

I think the purpose of a subject guide would be to … (select all that apply)

• Provide me with access to resources
• Provide me with guidance about which resources to use
• Provide me with technical instructions on how to use particular resources (e.g., nuts and bolts, how-to information)
• Provide me with self-directed learning about how to perform research (e.g., tutorials, resources, or information about different topics)
• Other (please describe)

What would likely be most important to you when using a subject guide?
• Quick and easy links to resources
• Guidance or suggestions about which resources to use and how to use them
• Being able to learn on my own, without having to contact the library

Demographics
What is your role at the University? If you have more than one role, please select the role that you consider to be your primary or main role.
• Undergraduate Student
• Graduate/Professional Student
• Academic/University Staff
• Hospital Clinical Staff
• Hospital Administrative Staff
• Faculty
• Other (please describe)

Which Health Sciences college/department or Hospital are you affiliated with?
• College of Medicine
• School of Health and Rehabilitation Sciences
• College of Nursing
• College of Dentistry
• College of Public Health
• College of Optometry
• OSU Wexner Medical Center
• James Cancer Hospital
• Other OSU Clinic
• Other (please describe)

Is there anything else you would like to share about the HSL subject guides?
• Free text box
References

1. “LibGuides – Content Management and Curation Platform for Libraries.” Springshare. Accessed December 8, 2021. https://www.springshare.com/libguides/.

2. Vileno Luigina. “From Paper to Electronic, the Evolution of Pathfinders: A Review of the Literature.” Reference Services Review 35, no. 3 (2007): 434–451. doi:10.1108/00907320710774300

3. Ouellette Dana. “Subject Guides in Academic Libraries: A User-Centred Study of Uses and Perceptions.” Canadian Journal of Information & Library Sciences 35, no. 4 (2011): 436–451. doi:10.1353/ils.2011.0024

4. Sinkinson Caroline, Alexander Stephanie, Hicks Alison, and Kahn Meredith. “Guiding Design: Exposing Librarian and Student Mental Models of Research Guides.” Portal: Libraries and the Academy 12, no. 1 (2012): 63–84. doi:10.1353/pla.2012.0008

5. Sonstey Alec, and DeJonghe Jennifer. “Usability Testing, User-Centered Design, and LibGuides Subject Guides: A Case Study.” Journal of Web Librarianship 7, no. 1 (2013): 83–94. doi:10.1080/19322909.2013.747366

6. Baker Ruth L. “Designing LibGuides as Instructional Tools for Critical Thinking and Effective Online Learning.” Journal of Library & Information Services in Distance Learning 8, no. 3–4 (2014): 107–117. doi:10.1080/1533290X.2014.944423

7. Little Jennifer J. “Cognitive Load Theory and Library Research Guides.” Internet Reference Services Quarterly 15, no. 1 (2010): 53–63. doi:10.1080/10875300903530199

8. Reeb Brenda, and Gibbons Susan. “Students, Librarians, and Subject Guides: Improving a Poor Rate of Return.” Portal: Libraries and the Academy 4, no. 1 (2004): 123–130. doi:10.1353/pla.2004.0020

9. Gessner Castro, Gabriela, Chandler Adam, and Wilcox Wendy Sue. “Are You Reaching Your Audience?: The Intersection between LibGuide Authors and LibGuide Users.” Reference Services Review 43, no. 3 (2015): 491–508. doi:10.1108/RSR-02-2015-0010

10. Morris Sara E., and Grimes Marybeth. “A Great Deal of Time and Effort: An Overview of Creating and Maintaining Internet-Based Subject Guides.” Library Computing 18, no. 3 (1999): 213–216.

11. Hintz Kimberly, Farrar Paula, Eshghi Shirin et al. “Letting Students Take the Lead: A User-Centred Approach to Evaluating Subject Guides.” Evidence Based Library and Information Practice 5, no. 4 (2010): 39–52. doi:10.18438/B87C94

12. Paas Fred, Renkl Alexander, and Sweller John. “Cognitive Load Theory: Instructional Implications of the Interaction between Information Structures and Cognitive Architecture.” Instructional Science 32, no. 1/2 (2004): 1–8. doi:10.1023/B:TRUC.0000021806.17516.d0

13. Bergstrom-Lynch Yolanda. “LibGuides by Design: Using Instructional Design Principles and User-Centered Studies to Develop Best Practices.” Public Services Quarterly 15, no. 3 (2019): 205–228. doi:10.1080/15959.2019.1632245

14. Westbrook Lynn. “Mental Models: A Theoretical Overview and Preliminary Study.” Journal of Information Science 32, no. 6 (2006): 563–579. doi:10.1177/0165551506068134

15. Carey John, Pathak Ajatshatru, and Johnson Sarah C.. “Use, Perceptions, and Awareness of LibGuides among Undergraduate and Graduate Health Professions Students.” Evidence Based Library and Information Practice 15, no. 3 (2020): 157–172. doi:10.18438/ebilip29653

16. Eysenbach Gunther. “Improving the Quality of Web Surveys: The Checklist for Reporting Results of Internet E-Surveys (CHERRIES).” Journal of Medical Internet Research 6, no. 3 (2004): e34. doi:10.2196/jmir.6.3.e34 [PubMed: 15471760]

17. Sharma Akash, Duc Nguyen Tran Minh, Thang Tai Luu Lam et al. “A Consensus-Based Checklist for Reporting of Survey Studies (CROSS).” Journal of General Internal Medicine 36, no. 10 (2021): 3179–3187. doi:10.1007/s11606-021-06737-1 [PubMed: 33886027]

18. “Qualtrics XM.” Provo, UT: Qualtrics, 2021. https://www.qualtrics.com

19. “Qualtrics Stats IQ Basic Overview.” Provo, UT: Qualtrics, 2021. https://www.qualtrics.com/support/stats-iq/getting-started-with-stats-iq/overview-stats-iq/.
20. O’Dell Frederick, and Preston Hugh, “Exploring Factors in Non-Use of Hospital Library Resources by Healthcare Personnel.” Library Management 34, no. 1/2 (2013): 105–127. doi:10.1108/01435121311298315
Figure 1.
Guide users (N = 34) and nonusers (N= 172), information expected on a guide.
Figure 2.
Guide users (N = 34) and nonusers (N = 172), motivation or influence to use a guide.
Figure 3.
Guide users (N = 34) and nonusers (N = 172), overall purpose of subject guides.
Figure 4.
Guide users ($N = 34$) and nonusers ($N = 172$), most important feature when using a guide.
Table 1.

Summary of participants.

| Category                                    | Number |
|---------------------------------------------|--------|
| Total number of responses                   | 206    |
| Undergraduate students                      | 39     |
| Graduate/professional students              | 73     |
| Faculty                                     | 51     |
| Academic/university staff                   | 24     |
| Hospital clinical staff                     | 12     |
| Hospital administrative staff               | 7      |
| College of Medicine                         | 9      |
| School of Health and Rehabilitation Sciences| 53     |
| College of Nursing                          | 54     |
| College of Dentistry                        | 14     |
| College of Public Health                    | 25     |
| College of Optometry                        | 33     |
| Ohio State Wexner Medical Center            | 10     |
| James Cancer Hospital                       | 5      |
| Other Ohio State Clinic                     | 1      |
| Other                                        | 2      |