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## **Learning from Failure: Creating Better Subject and Course Guides Using Critical Information Literacy Practices**

Jeremiah Paschke-Wood

Leslie Sult

Ellen Dubinsky

Nicole Hennig

# LEARNING FROM FAILURE: CREATING BETTER SUBJECT AND COURSE GUIDES USING CRITICAL INFORMATION LITERACY PRACTICES

JEREMIAH PASCHKE-WOOD, LESLIE SULT, ELLEN DUBINSKY, & NICOLE HENNIG

## INTRODUCTION

In an effort to provide more student-centric support via our library website, four librarians at University of Arizona Libraries (UAL) decided to plan and enact some changes to facilitate easier use of library tools, particularly for novice researchers at the university. Initially our research revolved around reimagining library guides and moving away from the long lists of resources prevalent among so many guides created by academic libraries. Though that continued to be a focus of our work, we also decided to approach the library home page as a tool that could be used by students to find resources, especially by those students who might struggle with understanding what sorts of questions to ask via our chat services or in interactions with librarians. With that in mind, we created a new suite of instructionally oriented Frequently Asked Question (FAQ) pages for students that are designed to be used along with our existing FAQ tools which focus primarily on questions related to facilities, library accounts, and library hours. In this paper, we will look at the thought process behind these changes, how they were planned and executed, and then offer suggestions for librarians looking to make similar additions and changes to their existing websites and research tools.

## LITERATURE REVIEW

Our initial research looked closely at past literature about subject and research guides as they evolved from the early 1960s “pathfinders” to the present-day nearly ubiquitous online LibGuides. We were surprised to find that researchers had long emphasized the importance of a pedagogical purpose and design for subject guides. The earliest articles and research (Jackson, 1984; Sizer & Warner, 1984; Thompson & Stevens, 1985) pointed to the instructional usefulness of research guides, helping students to develop their own search strategies rather than merely pointing to specific information resources. The instructional goals for research guides included not just search strategies but also how to evaluate information (Galvin, 2005) and how to navigate through the research process (Baker, 2014; Lee & Lowe, 2018; Stone et al., 2018). We found that most prior research pointed to the instructional and pedagogical uses of research guides.

We were influenced by the scaffolded approach to user-centered guides proposed by Patricia Knapp and the Montieith College Library Experiment project in the early 1960s (as described by Hemmig, 2005) and the Library DIY model—developed by Meredith Farkas and her colleagues at Portland State University (Farkas 2013)—which is designed as a system of small, discrete learning objects that succinctly address specific questions related to the research process. While this research helped frame our initial efforts to overhaul our university libraries’ guides, subsequent investigation of the literature has reinforced our conviction to follow this path. For example, recent research on using LibGuides to provide instructional support for systematic reviews (Lee et al, 2021) analyzed guide content and found that these guides “focused on information and links instead of on the instructional content to develop systematic review skills” (p. 73). The researchers frame their findings as a significant opportunity to transform systematic review guides into skill-building, learning tools.

Further influence on our approach to redesigning the University of Arizona Libraries' LibGuides came from research on the role of guide design and how it impacts usability and effectiveness in developing learner-centered, pedagogically focused guides. Ahmed (2013) focused on the importance of design to the usability and effectiveness of LibGuides. Guide aesthetics (layout, color, uniformity, text, etc.) enhance the user's interaction with the guide content. She stressed that "[t]o ignore the design issue, to cast it as a less important element than content, is doing our patrons—and our valuable resources—a great disservice" (p. 104). The goal of applying practical design principles to research guides is not visual attractiveness alone, rather "the overarching goal is to use aesthetics to engage users and effectively support the pedagogical purpose of a guide" (p. 117).

Thorngate and Hoden (2017) conducted user-testing prior to migrating from LibGuides v1 to LibGuides v2 in order to optimize the design for student usability because "the structural features of an e-learning user interface can impact cognition and student learning" (p. 856). Their results dictated their ultimate decisions about number of columns, navigation menu placement, and visual integration with the library website. This research confirmed our decision to better integrate the look and feel of the University of Arizona LibGuides with the University Libraries' website design and navigation.

Combining the principles of service design thinking (user-centered, co-creative, sequencing, evidencing, and holistic) and e-learning project planning, instructional designer Elizabeth German (2017) described a strategy to create "useful and usable guides for all learners" (p. 166). Instructional designer Yolanda Bergstrom-Lynch (2019) combined the findings from existing guide user studies with the pedagogical and learner-centered design principles of instructional design to develop a set of best practices for LibGuides (pp. 218-219).

Barker and Hoffman (2021) developed a student-centered design for the Kennesaw State University Library LibGuides through a mixed-method research design project involving undergraduate students. Their data supported "the case for organizing research guide content according to a research process, rather than by types of sources" (p. 88). The researchers also recommend creating blueprint guides, allowing other librarians to save time and easily reproduce effective guide structure when creating new guides.

Comfortable with the preponderance of research pointing toward learner-centered, pedagogically-focused guides, we went to work.

## DESIGN AND INFRASTRUCTURE

At the University of Arizona, a small group of fewer than 20 liaisons is tasked with providing subject-specific support to a large university community with over 35,000 undergrads. By necessity, librarians often have to turn to online tools to support their pedagogical and instructional needs. In the past, these tools were often of the variety seen at academic libraries across the United States—some version of library guides, both directed at academic subject areas and specific courses, subject or research-based tutorials and Guide on the Side interactive tutorials for web pages and databases. However, analyzing LibGuides usage, chat transcripts and our library's Frequently Asked Questions database painted a stark picture of how infrequently these tools were being used by students. An analysis of UAL LibGuides usage for a five-month period in 2019 showed that many subject guides received what amounted to less than one view a day over the period, and the most heavily used LibGuides were either course- or topic-specific.

With much library research reflecting similar concerns about LibGuides usage and efficacy, we decided to reimagine some of our online tools to address not only the relative lack of use of subject guides by our students, but also to provide tools that would be useful to students working independently, regardless of their prior knowledge of library resources. Analysis of the library's chat service and FAQ questions submitted by users highlighted several main points of concern for undergraduate students. Disregarding questions that focused more on account and facilities issues which take up a large portion of any academic library chat and FAQ questions, most of the topics revolved around the same basic themes: citation support, peer review and scholarly articles and how to find them, basic search techniques, contacting librarians for support, and other research support. In addition, the variety of ways in which students sought support for these issues indicated that it was not clear to many students how to do basic research on the library website, and their attempts at finding that information often led to a dead end.

After conducting our analysis, we decided to take two broad steps to support undergraduate research on the website. The first was creating a foundational page on the website to support undergraduate learners. This would include the library's existing FAQ support, which had largely focused on facilities and general questions and contained very little research support. The revised FAQs, which were renamed "Help with Library Research," were populated with questions that spoke to the needs based on the chat and FAQ questions around research such as "How do I develop a good research question?," "How do I start searching for information?" and similar questions. The goal with these questions would be to provide simple, easy to understand answers as well as a link to other more advanced library resources related to the topic, whether video or tutorial or other medium, as well as related

FAQ questions. The goal was to create something of a web of different resources to help students who might not understand exactly how to define the support they needed. The Spaces and Materials section primarily housed the existing FAQ articles on the library as a physical space and accounts issues. The second step in our overhaul involved reimagining how our LibGuides served students. We intentionally began moving away from the long lists of resources that many of the subject guides on our website (and other academic library websites) currently contain. This reimagining involved grounding the creation of subject guides within a pedagogically oriented frame and working to walk students through the steps of research in a more functional way. We approached the redesign as if we were planning and implementing an instruction session for students we cannot see.

## HOW TO DO THIS AT YOUR LIBRARY

The process for this overhaul involved a good deal of planning as well as some trial and error. After reviewing the literature and assessing use data and chat transcripts, we began a much needed visual and philosophical overhaul of our guides and FAQs. Since we lack internal support for software development and maintenance, we were fortunate in being able to use some library funding to hire a CSS coding expert to help us through the visual overhaul. As this work proceeded, the team began developing drafts for our revised FAQs and subject guides. We began with the FAQs, because we hoped to follow a model similar to Portland State's Library DIY project, where we would use thoughtfully designed small pieces of instruction to serve as a foundation to our guides. Our redesigned research FAQs contain a brief answer to a specific question so that students can get assistance without having to click another link: <https://ask.library.arizona.edu/faq/306593/>. After each brief answer, we link to more in-depth material so that students can take a deeper dive as needed. Along with redesigning the FAQs to be more pedagogically focused, we linked access to them directly from our library home page: <https://libguides.library.arizona.edu/faq>. These changes have led to a threefold increase in the use of FAQs in the past 12 months. In relation to guides, once we worked through how we wanted to present information in a more pedagogically oriented way, we realized that we would need to develop a much better infrastructure to support guide creators in moving beyond long lists of resources. Along with providing training, we developed a creator guide <https://libguides.library.arizona.edu/guidelines/new-guide> as well as templates <https://libguides.library.arizona.edu/guidelines/blueprints> that allow guide creators to copy a design and populate a guide with discipline-specific resources and instructional materials. In working through these processes, the redesign team found that using a set of guiding questions can help facilitate the process of moving away from traditional pathfinder guides. These questions include thinking about what would come first in a research process as well as thinking about how students may engage with different resources and materials as they work their way through answering a research question. To that end, we have created a handout (<https://tinyurl.com/convert-your-guide>) to guide authors through converting a guide to a more instructional format.

## CONCLUSION

In the near future, we plan on assessing student use as well as student learning outcomes related to the revised guides. It is still a challenge to get students to engage with guides that are more general in nature rather than course-specific, so we intend to keep iterating on the guide design to ensure that we are developing a system that uncovers the research process for students, as well as guides them to the information that they need. We also plan on creating more instructor-focused guides that allow instructors of large general education courses to have our support in planning their assignments in a way that makes research more accessible for their students. This will eliminate some course-specific guides that contain both resource lists for students and course and instructional information for instructors. It will also allow us to have more guides that specifically speak to the needs of users without causing confusion.

## REFERENCES

- Ahmed, N.H. (2013). Design: Why it is important and how to get it right, in A.W. Dobbs, R. Sittler, and D. Cook (eds.) *Using LibGuides to Enhance Library Services: A LITA Guide*. Chicago.: ALA Techsource, (pp. 103-119).
- Baker, R.L. (2014). Designing LibGuides as instructional tools for critical thinking and effective online learning. *Journal of Library & Information Services in Distance Learning*, 8(3-4), 107-117. <https://doi.org/10.1080/1533290X.2014.944423>
- Barker, A.E.G. & Hoffman, A.T. (2021). Student-centered design: Creating LibGuides students can actually use. *College & Research Libraries* 82(1), 75-91. <https://doi.org/10.5860/crl.82.1.75>.
- Bergstrom-Lynch, Y. (2019). LibGuides by design: Using instructional design principles and user-centered studies to develop best practices. *Public Services Quarterly*, 15(3), 205-223. <https://doi.org/10.1080/15228959.2019.1632245>
- Farkas, M.G. (2013, July 2). *Library DIY: Unmediated point-of-need support*. *Information Wants to be Free* [blog]. <https://meredith.wolfwater.com/wordpress/2013/07/02/library-diy-unmediated-point-of-need-support/>
- Galvin, J. (2005). Alternative strategies for promoting information literacy, *The Journal of Academic Librarianship* 31(4), 352-357. <https://doi.org/10.1016/j.acalib.2005.04.003>
- German, E. (2017). Information literacy and instruction: LibGuides for instruction: A service design point of view from an academic library. *Reference & User Services Quarterly*, 56(3), 162-167. <https://doi.org/10.5860/rusq.56n3.162>
- Hemmig, W. (2005). Online pathfinders. *Reference Services Review*, 33(1), 66-87. <https://doi.org/10.1108/00907320510581397>
- Jackson, W.J. (1984). The user-friendly library guide. *College & Research Libraries News*, 45(9), 468-71.
- Lee, J., Hayden, K. A., Ganshorn, H., & Pethrick, H. (2021). A content analysis of systematic review online library guides. *Evidence Based Library and Information Practice*, 16(1), 60-77. <https://doi.org/10.18438/eblip29819>
- Lee, Y.Y. & Lowe, M.S. (2018). Building positive learning experiences through pedagogical research guide design. *Journal of Web Librarianship*, 12(4), 205-231, <https://doi.org/10.1080/19322909.2018.1499453>
- Sizer Warner, A. (1983, March). Pathfinders: a way to boost your information handouts beyond booklists and bibliographies. *American Libraries* 14, 151.
- Stone, S.M., Lowe, M.S., Maxson, B.K. (2018). Does course guide design impact student learning? *College & Undergraduate Libraries*, 25(3), 280-296. <https://doi.org/10.1080/10691316.2018.1482808>
- Thompson, G.J. and Stevens, B.R. (1985). Library science students develop pathfinders. *College & Research Libraries News*, 46(5), 224-5. <https://doi.org/10.5860/crln.46.5.224>
- Thorngate, S., & Hoden, A. (2017). Exploratory usability testing of user interface options in LibGuides 2. *College & Research Libraries*, 78(6), 844-861. <https://doi.org/10.5860/crl.78.6.844>