Librarians at San Francisco State University (SF State) set out to create a curricular toolkit of research skills and information literacy learning activities that could easily be used by instructional faculty in their classrooms, in-person or online. The goal of undertaking this work was to provide accessible and inclusive resources for faculty to incorporate critical information literacy work into their classes beyond the traditional one-shot engagement with the library.

William Badke discusses the common misconception that students learn research “by osmosis”—that when presented with research opportunities, they will do research (without instruction) and through doing research, they’ll get better at doing research. While that certainly can happen, it makes the process much harder than it needs to be and can set students up to fail. Then, when some students are not able to intuit college-level research skills, faculty are confused, or worse, disparaging. But because this is how many faculty learned to research, the practice is often perpetuated. Badke discusses a number of studies that suggest that faculty believe students develop information literacy throughout their undergraduate careers, without any conceptualization of how that happens, and in some instances without being able to articulate what information literacy is. Additionally, in a large university, there isn’t hope that the library can facilitate a one-shot library instruction session for every class to mitigate these systemic challenges. In addition to the limitations of scope, there is also a limit on how much content can be covered in a single session.

Thus, one goal in creating a curricular toolkit was to avoid this common trap of information literacy learning and equip our faculty with accessible and adaptable tools for teaching it. In creating a toolkit of activities across the spectrum of research skills, we hoped that faculty would better be able to provide research instruction at the appropriate point of need and more effectively scaffold research learning throughout the class, rather than containing it to a single one-shot session. Instead of wondering at the quality of student work without any support, they would have some resources to address challenges and provide intentional instruction toward further developing students’ information literacy.

Our toolkit was inspired by the Hunter College Libraries’ student-facing toolkit, created by Stephanie Margolin and Wendy Hayden. Their goal was “to help faculty and students see research as a process of inquiry and discovery, not a collection of information proving a narrow thesis,” which is a goal we shared, in addition to searching for sustainable and scalable ways
to expand the reach of library expertise. Research is an organic process that requires active learning, thus our toolkit is structured as a menu of resources, not a step-by-step procedure.

The toolkit isn’t intended to shift all information literacy instruction from the library to instructional faculty, but rather provide resources, support, and an alternative or additional approach if desired. While we often discuss providing library instruction at the point of need, a well-scaffolded research process will have many different points of need throughout the semester. We hope to support faculty in shifting from a single library one-shot where students get information overload as we try to tell them everything they might need to know, to interactive and sustained engagement throughout the course. The activities in our original toolkit could be collaborative in-class activities or modified to be individual homework assignments, so that instructors can use them in whatever way best fits their course.5

Creation process
The first step in creating the Teaching Research Toolkit was to solicit materials and ideas from the SF State instruction librarians. Requests were sent to all instruction librarians asking them to submit their favorite activities and go-to worksheets to a shared Google Drive folder. The goal was to examine a broad range and variety of resources to curate a selection, rather than start from scratch. Submissions were sorted into four categories: Topics/Research Questions, Finding Sources, Evaluating Sources, and Using Sources. The categories were chosen to represent the important steps and skills in the research process.

In each category, all the options were reviewed and two to five strong lesson plans were selected. The toolkit was designed to be useful across any discipline, so the lesson plans needed to be generic and adaptable to include discipline-specific practices. Unfortunately, many strong lesson plans weren’t selected because they were very subject-specific and weren’t easily adjusted for a wider audience. Variety and skill level were also considered when selecting activities. For some categories, such as Evaluating Sources, multiple options were desired because many effective evaluation strategies exist that users might want to choose from. For some categories, such as Finding Sources, options for different skill levels were included because we wanted lower-division, upper-division, and graduate instructors to be able to use these with their students.

For consistency and ease of use, we created a common activity template with a cover page that included learning outcomes, preparation needed, an overview of the lesson, and any additional notes. A Creative Commons license was applied wherever possible to ensure faculty could easily modify lessons to fit their specific course needs.

Once everything was selected, it was uploaded to a LibGuide. While there are many other possible approaches to sharing the resources, a LibGuide provided an easy way to organize materials, share files (that could then be edited without risk of editing over the original), and add short explanations of each activity. Additionally, unlike using a learning management system or campus file-sharing system, it did not require any login.

A feedback form was included on the LibGuide so users could share what they found useful or submit suggestions.

Once complete, the toolkit was shared with the entire library faculty. We solicited feedback and invited liaison librarians to share the toolkit with their liaison faculty. In its debut months, August and September 2020, the Teaching Research Toolkit guide got 498 views, and we received positive feedback from our library administrator and a few teaching faculty.
Unfortunately, there isn’t a metric for use beyond guide views and feedback from individuals.

**Revising the toolkit from a universal design for learning perspective**
The authors returned to the toolkit in January 2021 to revisit the activities and revise them from the perspective of universal design for learning (UDL) to ensure that the activities were as inclusive and accessible as possible.

The authors reviewed each activity individually with the UDL rubric, identifying areas where the lesson was strong and areas for improvement. During our biweekly meetings, we shared notes and discussed what revisions to make. We divided up revision tasks and checked in at the next meeting to make sure all revisions were complete. We usually worked on two to three activities at a time. This schedule allowed time to work between meetings, setting a manageable pace while continuing to move the project forward. The collaborative process was valuable, but individuals could easily conduct a similar review independently.

**Future directions**
The curricular toolkit is a living resource that will be revisited, refreshed, and revised appropriately so the materials in it don’t get stale. Ongoing promotion to faculty will hopefully lead to new users, and new activities will hopefully continue to attract returning users.

A professional development workshop designed by the authors and offered through the campus teaching and learning center gave instruction faculty an opportunity to share or design their own activity similar to those in the toolkit. The authors reviewed all the submissions, found several excellent activities, and contacted the authors to ask if they would be willing to share in their activity in the Teaching Research Toolkit with a Creative Commons License.

The next major undertaking for the Teaching Research Toolkit is to incorporate the resources into the campus learning management system (LMS). While this option didn’t initially align with the project goals, the authors now feel that integration into the LMS would facilitate additional use because of ease of access for faculty. This work will require once again revisiting the activities and presenting faculty with multiple formats within the LMS. We would offer both the original in-class activity presentation as well as a module
Curricular toolkit creation doesn’t have to be a huge, impossible job! Even just creating a small set of activities and lessons that can be adapted to different instructional situations would be useful. A curricular toolkit can take many forms; it can be internal or external, student-facing or faculty-facing. SF State’s Teaching Research Toolkit has been shared with faculty and new instruction librarians who can draw on it and modify the activities in their own teaching.

Creating the toolkit has also encouraged the sharing of best practices among colleagues. In a previously siloed department, the toolkit has started conversations about best practices and helped colleagues learn more from each other.

Importantly, a curricular toolkit can provide excellent support in addition to librarian instruction, consultation, and resource development. While one-shots are still the primary form of engagement at SF State, the Teaching Research Toolkit has helped the Student Success and Engagement Team to move beyond the one-shot for some programs, courses, and departments. While creating a toolkit does require some time, it has also helped save time in instruction planning for librarians, in addition to its primary goal of being a resource for instructional faculty.

Lastly, UDL revision can be valuable for any existing instruction activities, digital learning objects, and more to improve accessibility and learning for all users. If a curricular toolkit is not for you, consider how UDL could be used to improve the inclusion and accessibility of your existing instructional resources.

Presentation, including readings, PowerPoint presentations or videos, activity submissions, or discussion boards as appropriate to the activity.

**Conclusion**

Curricular toolkit creation doesn’t have to be a huge, impossible job! Even just creating a small set of activities and lessons that can be adapted to different instructional situations would be useful. A curricular toolkit can take many forms; it can be internal or external, student-facing or faculty-facing. SF State’s Teaching Research Toolkit has been shared with faculty and new instruction librarians who can draw on it and modify the activities in their own teaching.

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