

Research Reproducibility 2020
Educating for Reproducibility: Pathways to Research Integrity
University of Florida, Gainesville, FL, USA

**Developing a Replicability Workshop for Our Community of Academic Medical
Library Users**

Fred LaPolla, MLS⁽¹⁾ and Alisa Surkis, PhD, MLS⁽²⁾

⁽¹⁾NYU Langone Health – NYU Health Sciences Library, fred.lapolla@nyulangone.org

⁽²⁾NYU Langone Health – NYU Health Sciences Library, alisa.surkis@nyulangone.org

ABSTRACT

Background: In recent years, issues relating to reproducibility, replicability and scientific rigor have been gaining steady attention both in scholarly journals and in the mainstream press. While classes in our medical center's graduate curriculum address this issue, little help is available to researchers and support staff. To help address the reproducibility crisis, librarians at an academic health sciences library created a stand-alone 90 minute workshop on reproducibility.

Methods: Building on experience teaching a 1-credit, semester-long graduate curriculum course on Rigor and Reproducibility, we worked to create a 90 minute in-person workshop. We saw this material as filling a need for researchers and staff to be informed of a growing issue and areas that would need to be addressed when developing a research protocol or writing a grant application. Our class employs interactive exercises to cement lessons as well as case-based analysis to challenge participants to think critically about reproducibility in study design and analysis. Our workshop primarily focuses on information about experiment-level replicability, though also discusses issues relating to computational reproducibility, sex as a biological variable and authentication of key resources.

Results: We offered our workshop four times in 2020, each in a different context. When taught as a stand-alone session in our library's data workshop series, attendance was low, but participant evaluations were positive and students demonstrated engagement with material. In subsequent sessions, which were offered synchronously by Zoom, the library was invited to speak to three groups: dentistry post-docs, summer interns, and clinicians engaged in a research- and data-intensive certificate program. While it was not possible to collect evaluation data for these sessions, feedback from program organizers and level of learner engagement during sessions indicated that the material was well received.

Conclusions: The reproducibility crisis has highlighted the challenges faced by researchers in designing studies that are fully reproducible, and librarians are well positioned to provide training to support researchers' efforts to engage in rigorous and reproducible research. While the limited attendance at an "opt-in" workshop in the library may reflect that researchers are not likely to seek out this training on their own, the workshop was a good fit for training programs for researchers at our institution, and was well-received by the attendees. For students and early career researchers, the level of material presented offered an introduction to key concepts that will continue to be relevant throughout their careers.