LAUC GRANTS PROGRAM
ANNUAL / END OF FUNDING REPORT FORM

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Please save your file in the following format and email a copy to the LAUC R&PD Chair.
 [Last Name]_[Campus]_[Type of Grant]_[Type of Report]_[Academic Year]
 Example: Green_UCLA_Research_End_2021-2022

 For annual reports, add the year of submission.
 Example: Green_UCLA_Research_Annual2022_2021-2022

Primary Applicant

Ariel Deardorff

Co-Applicant(s)

Campus of Primary Applicant

UCSF

Type of Report (i.e. Annual or End of Funding)

End of Funding

E-Mail Address of Primary Applicant

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Date of Report

Dec 3, 2021

TITLE OF PROJECT

Assessing the Impact of Programming Workshops on Biomedical Research Reproducibility

Award Amount

$600

Award Year (e.g. 2021-2022)

2019-20

Original Abstract as Submitted

Like several UC libraries, the UCSF library has partnered with the non-profit organization The Carpentries to teach introductory programming workshops to researchers with the goal of improving programming literacy and computational reproducibility. The workshops are two-day hands-on events that cover basic computing skills including the programming languages R or Python, version control with Git, and scripting in Unix. Since partnering with Carpentries in 2016, UCSF has taught 12 workshops to over 700 UCSF researchers. While demand for the workshops is always very high, there is a lack of evidence regarding the extent to which participation the workshops leads researchers to adopt better computational practices. This presentation reports on a mixed-methods research project to assess the impact of programming workshops on the computational reproducibility of researchers' workflows. The study consisted of semi-structured in-depth interviews with 14 UCSF researchers at two points in time: before they participated in a UCSF Library-led introductory R and Python programming workshop, and three months after they completed the workshop. The data consists of qualitative data on the tools, methods, and processes researchers used in their work, and quantitative data from a questionnaire that measured evidence of computationally reproducible behaviors. The results will inform the design of future programming workshops and add to the literature about the role of libraries in enabling reproducible research.

ACCOMPLISHMENTS AND EVALUATION
Please respond to the following as appropriate:
- Describe what was achieved during the time period of the grant.
- What aspects were completed as proposed? If your study could not be completed as proposed, explain how your plans were altered.
- Did the project accomplish what it intended? Did it make a difference?
- Include any relevant quantitative data, if applicable (e.g. How many individuals have benefited from this project and in what way? You may include various output measures such as circulation/reference transactions, program attendance, survey responses, etc.).
- Include any anecdotes, if applicable.
- What would you do differently next time, if anything?

I presented the presentation virtually at the MLA 2020 conference.

Is your project completed?

◉ Yes

  No

If No, what is needed to complete the project? More time, funds?

FINANCIAL STATEMENT

Please explain how the funds received were spent. Attach your original budget and indicate how well your estimates matched with actual expenditures. Receipts are not necessary.

The original budget for the conference was $2375. Due to COVID, the conference moved online and the only cost was the $385 registration fee. LAUC funds were used to cover this fee.

SHARING YOUR PRODUCT/RESULTS

What are your plans for disseminating the results of your work? If it will be a webpage or product, or published article or book, when will it be available to the public? Include citations/URLs if known. Remember that all final products must acknowledge receipt of funds from LAUC.

This project was later written up in a paper for the journal PLOS One. Citation: Deardorff A (2020) Assessing the impact of introductory programming workshops on the computational reproducibility of biomedical workflows. *PLoS ONE* 15(7): e0230697. https://doi.org/10.1371/journal.pone.0230697