Pre-Workshop Survey

For the 2018-2019 Data Science Workshops at Montana State University

You are being asked to participate in a research study to understand what methods are the most effective in teaching computational skills in `R`. Results from this study may provide a better understanding of the computational thinking and abilities of undergraduate and graduate students.

If you agree to participate in this study you will be asked to complete a pre-workshop survey, detailing your demographic information and computational background and a post-workshop assessment of your understanding of the computational techniques covered. Your survey and assessment will be paired and any information that might identify you personally (including your name) will be removed. Only the workshop administrator will have access to your identity.

Your participation in this research is voluntary. You are free to stop participating in the research at any time, or to decline to answer any specific questions. Your participation in this research study is confidential. There are no foreseen risks to participation in this research study.

If you have any questions regarding this research project you can contact me at allisontheobold@montana.edu.

1. I agree to participate in the study. If you agree to participate, you will be asked to complete all of the questions below.

   ☐ Yes

   ☐ No

2. Please indicate your relevant departmental affiliation. Check all that apply.

   ☐ Agricultural Economics

   ☐ Agricultural Education

   ☐ Animal & Range Sciences

   ☐ Land Resources & Environmental Sciences

   ☐ Microbiology & Immunology

   ☐ Plant Sciences & Plant Pathology

- ☐ Architecture
- ☐ Art
- ☐ Film & Photography
- ☐ Music
- ☐ Education
- ☐ Health & Human Development
- ☐ Center for Biofilm Engineering
- ☐ Chemical & Biological Engineering
- ☐ Civil Engineering
- ☐ Computer Science
- ☐ Electrical & Computer Engineering
- ☐ Mechanical & Industrial Engineering
- ☐ Nursing
- ☐ Agricultural Economics
- ☐ Chemistry & Biochemistry
- ☐ Earth Sciences
- ☐ Ecology
- ☐ Organismal Biology (Botany, Zoology, etc.)
- ☐ Planetary Sciences (Geology, Climatology, Oceanography, etc.)
- ☐ English
- ☐ History & Philosophy
- ☐ Mathematical Sciences
- ☐ Native American Studies
- ☐ Physics
- ☐ Political Science
- ☐ Psychology
- ☐ Sociology and Anthropology
- ☐ Economics or Business
- ☐ Space Sciences
- ☐ Other (please specify)

3. Your current occupation at the university

- ☐ Seeking Bachelors degree
- ☐ Seeking Master's degree
- ☐ Seeking Doctorate degree

- ☐ Completing a Post-Doc
- ☐ Faculty member
- ☐ Staff Member
- ☐ Other (please specify)

4. How many computer science courses (undergrad or grad) have you taken?

5. What are your previous computer science experiences? List course names.

6. What programming languages do you have experience with? Check all that apply.

- ☐ Python
- ☐ R
- ☐ Java or Javascript
- ☐ C or C++
- ☐ Fortran
- ☐ MatLab or Mathematica
- ☐ SQL
- ☐ Other (please specify)
- ☐ None
- ☐ What is a programming language?

7. What are your previous statistics experiences? List course names.

8. What other courses have you taken that require computer programming (e.g. R, GIS, SPSS, STATA, SAS, MatLab, Mathematica, MARK, etc.)? List course names.

9. What operating system is on the computer you are bringing to the workshop?

- ☐ OSX
- ☐ Windows
- ☐ Linux or Ubuntu
- ☐ What is an operating system?

10. Have you participated in independent or collaborative research outside the classroom?

- ☐ Yes
- ☐ No

11. If so, how much? Check all that apply.

   ☐ Little to No
   ☐ A few projects
   ☐ I'm almost done with my thesis
   ☐ I completed a thesis

12. Do you have experience collecting your own data? Check all that apply.

   ☐ Yes, I've helped others collect data.
   ☐ Yes, I've collected my own data,
   ☐ No

13. If you have collected your own data, how did you choose to store it? Check all that apply.

   ☐ Microsoft Excel
   ☐ Microsoft Access
   ☐ Microsoft Word
   ☐ On paper
   ☐ Text file
   ☐ Other (please specify)

14. What is your most important reason for attending this workshop? Check all that apply.

   ☐ Research assistance
   ☐ Coursework assistance
   ☐ Preparation for graduate school
   ☐ Adviser recommended
   ☐ Department/Professor recommended
   ☐ Network with other workshop attendees
   ☐ Refresh or update skills
   ☐ Other (please specify)

15. What resources have you used while learning to program in `R`? Check all that apply.

   ☐ Peers
   ☐ Lab Mates
   ☐ Adviser
   ☐ Course Materials
   ☐ Internet Resources
   ☐ Other (please specify)

16. In a few words, what do you hope to learn from this workshop?