

Intermediate R - Survey and Assessment Consent

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.

* Required

1. I agree to participate in the study. *

If you agree to participate, you will be asked to complete all of the questions below.
Mark only one oval.

- ☐ Yes *Skip to question 2.*
- ☐ No *Stop filling out this form.*

Skip to question 2.

Survey

2. Your name *

3. Please enter a unique identifier as follows:
Number of pets (as numeric) + First two letters
of your last name (lowercase) + First three
letters of your current street (lowercase). (e.g. I
have no pets, my last name is Theobald, and I
live on Beall Street, my unique identifier would
be 0thbea)
-

4. Your program of study *
-

5. The degree you are seeking *

Mark only one oval.

- ☐ Bachelors
- ☐ Master's
- ☐ Doctorate
- ☐ Post-Doctorate
- ☐ I am a faculty member of MSU.
- ☐ I am a staff member of MSU.
- ☐ Other: _____

6. When did you last take a quantitatively intensive course? (e.g. Stat 216, Calculus, WILD 401) *

Mark only one oval.

- ☐ Spring 2018
- ☐ Fall 2017
- ☐ Spring 2017
- ☐ Fall 2016
- ☐ Spring 2016
- ☐ Fall 2015
- ☐ Spring 2015 or earlier

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

8. What programming languages do you have experience with? *

Check all that apply.

- ☐ Python
- ☐ Java or Javascript
- ☐ C or C++
- ☐ Fortran
- ☐ SQL
- ☐ Other
- ☐ None
- ☐ What is a programming language?

9. Previous computer science experience (course names)

10. Previous statistical experience (course names) *

11. **What other courses have you taken that require a computer programming language? (R/ArcGIS/SPSS/STATA/SAS/MatLab/Mathematica/MARK, etc.) ***

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

Mark only one oval.

- ☐ Apple/Mac OS/Unix
- ☐ Windows
- ☐ Linux or Ubuntu
- ☐ What is an operating system?

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

Mark only one oval.

- ☐ Yes
- ☐ No

14. **If so, how much? ***

Mark only one oval.

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

15. **Do you have experience collecting your own data? ***

Mark only one oval.

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

16. If you have collected your own data, how did you choose to store it?*Mark only one oval.*

- ☐ Microsoft Excel
- ☐ Microsoft Access
- ☐ Microsoft Word
- ☐ On paper
- ☐ Text file
- ☐ Other

17. How satisfied are you with your current data management and analysis workflow (i.e. how you collect, organize, store and analyze your data)?*Mark only one oval.*

- ☐ Very unsatisfied
- ☐ Unsatisfied
- ☐ Neutral
- ☐ Satisfied
- ☐ Very satisfied
- ☐ Not sure
- ☐ Not applicable

18. Why did you choose to come to this workshop? **Check all that apply.*

- ☐ Research assistance
- ☐ Coursework assistance
- ☐ Preparation for graduate school
- ☐ Adviser recommended
- ☐ Department/Professor recommended
- ☐ Received an email or saw a flyer about the workshop.
- ☐ Other: _____

19. What do you hope to learn from this workshop? *

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

- ☐ Peers
- ☐ Lab Mates
- ☐ Adviser
- ☐ Course Materials
- ☐ Internet Resources
- ☐ Other: _____

21. Select the output produced by the script: `x <- c(TRUE, FALSE)` `class(x)`*Mark only one oval.*

- ☐ "numeric"
- ☐ "logical"
- ☐ "character"
- ☐ I don't know.

22. Which for-loop(s) will print the index value, starting at 1 and ending at 20?*Check all that apply.*

- ☐ `for(i = 1 to 20){ index[i] <- i }`
- ☐ `for(i in 1:20){ print(i) }`
- ☐ `for(i in seq(1, 20)) { print(i) }`
- ☐ `for(1 to 20) { index[i] <- i }`
- ☐ I don't know.

23. Which function takes arguments x and y and returns their ratio, x / y ?*Mark only one oval.*

- ☐ `ratio <- function(x, y) { x/y }`
 - ☐ `ratio <- x/y`
 - ☐ `ratio <- function(x, y){ x/y }`
 - ☐ `function(x, y){ x/y }`
 - ☐ I don't know.
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