Psychology Independent Study (PSYCH 333)
Washington University in St. Louis
Tuesdays, 12:30-1:30pm, Spring 2024
Seigle Hall, Room 211

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Office Hours for Students: By appointment

Course Objectives

The purpose of this course is to explore psychological research by engaging in different facets of the research process. Each week, using the data collected within the Negative Academic Experiences project we will use R to run statistical analyses. The goal of the course is to develop a poster to present at the undergraduate research symposium in the spring.

(1) expose the student to various aspects of empirical research and the functions of a psychology laboratory.

(2) provide the student with the opportunity to practice and refine research skills.

(3) give the student a deeper and fuller understanding of a particular topic or field of psychological inquiry.

(4) train the student interested in continuing in psychology to be prepared and effective in pursuing these goals and contributing to the scientific enterprise.

Course Overview

The course will be structured around the Negative Academic experiences project. For students to develop the skills to analyze the data, a significant chunk of the semester will be devoted to developing a working proficiency with the program. Additionally, students will be involved in developing a coding scheme for the qualitative data within the project.

The student is expected to devote 3-4 hours per week for 15 weeks to aspects of the research for each unit of credit to be earned. This includes working in the laboratory, attending laboratory meetings, meeting with supervisors, and reading material related to the project.

How to engage with the readings

When reading from "Learning Statistics from R" you should have Rstudio open at the same time so that you can try the code that is being shown in the book. This will be helpful in developing your proficiency with the software. For articles that are assigned, please come with 2-3 questions prepared related to the readings.

Course Materials

1. Rstudio
2. Learning Statistics with R (LSR), Version 0.6 by Danielle Navarro
    a. https://learningstatisticswithr.com

R exercises

Some exercises will be assigned to help you gain more practice with coding. Feel free to use google, ChatGPT or the help function in R. You will never have to code in R without access to resources which is why using R on the exercises is fine. However, if you do use one of these resources just write it down in a comment.

Schedule

Week	Dates	Topic	Reading	Independent Work
1	16-Jan	Getting Started with R & Brainstorming Potential Research Questions	LSR Sections 3.1-3.6	Complete the CITI Training (13 modules) https://hrpo.wustl.edu/training/human-subjects-education-citi/
2	23-Jan	Solidify Research Question to pursue this Semester & Address any R related questions	LSR Sections 3.6-3.12	Homework #1 is due
3	30-Jan	Identify relevant topics related to the research question & conduct tutorial on utilizing databases. Discuss strategies for reading research papers & organizing findings	LSR CH 4	Homework #2 is due
4	6-Feb	Discuss articles, findings, and citation managers	Identify & Read 8 Articles related to the topic	Share the graphic organizer with the eight articles you have read.
5	13-Feb	Discuss articles & findings. Identify major themes and gaps in the literature.	Identify & Read 8 more Articles related to the topic	Update the graphic organizer with the eight additional articles you have read.
6	20-Feb	Run descriptive statistics with relevant variables	LSR Sections 5.1-5.5	
7	27-Feb	Interpret the results of the descriptive statistics	LSR Sections 5.6- 5.9	Submit an Rmarkdown file with the code for the descriptive statistics and interpretations
8	5-Mar	Create relevant graphs of variables of interest	LSR Chapter 6	Submit an Rmarkdown file with the code for the graphs and interpretations
9	Spring Break	Have a good break		
10	19-Mar	Run Correlations & Regressions as needed	LSR chapter 15	Submit an Rmarkdown file with the code for the regressions and your interpretations

11	26-Mar	Time for additional research as needed		
12	2-Apr	Feedback on Poster	Rough Draft of Poster Due	
13	9-Apr	Feedback on Poster from Andy*	2nd draft of poster due	
14	16-Apr	Time for additional research as needed		
15	4/23/24	Practice the presentation for undergraduate research symposium/ Present at lab meeting?		