Getting started...

Psychology as a Science: Practical 1



Plan for today

Getting set up

What is R and RStudio?

Study design

- Participate in the SMARM study
- A brain-storming session in groups

Preview for next week

• Introduction to next week's tutorial/homework

But first, introductions...

Dr Lincoln Colling I.colling@sussex.ac.uk



- Originally from South Africa, but did my undergrad and masters at the University of Auckland, New Zealand (the home of the R statistics program!)
- Did my PhD in Australia in Neuroscience, Philosophy, and Experimental Psychology
- Since finishing my PhD, I've held research positions in Australia, The Netherlands, Hungary, and Cambridge in the UK.
- I've just started by third year at Sussex

But first, introductions...

Dr Danielle Evans danielle.evans@sussex.ac.uk



- Did my BSc in Forensic Psychology at the University of Portsmouth and my MSc in Psychological Research Methods at the University of Essex
- Completed my PhD in Psychology here at Sussex investigating all things 'mathsy'
- Following my PhD, I've spent most of my time teaching R & all the super cool things you can do with it
- I've been at Sussex for a little while now, but this is my second year teaching here





```
R Console
                                                          Q~ Help Search
   /Volumes/Alpha Lacertae/Documents/Academic/data/
[ITESCOTY TESCOTED TOWN / USERS/ UNDAYTEELD/ . NUMPP. ITESCOTY]
> library(tidyverse)

    Attaching packages

                                                               tidyverse 1.2.1 —

✓ ggplot2 3.2.1

✓ purrr 0.3.2

✓ tibble 2.1.3

✓ dplyr 0.8.3

✓ tidyr 0.8.3

✓ stringr 1.4.0

✓ readr 1.3.1

✓ forcats 0.4.0

— Conflicts
                                                                  tidyverse_conflicts() —
# dplyr::filter() masks stats::filter()
# dplyr::lag() masks stats::lag()
> library(here)
here() starts at /Users/andyfield
> getwd()
[1] "/Volumes/Alpha Lacertae/Documents/Academic/data/teaching_data/ais_data"
> zombie_tib <- readr::read_csv("ais_14_zombie_taser.csv")</pre>
Parsed with column specification:
cols(
  id = col_double(),
  immobility = col_double(),
  r_tms = col_double(),
  taser = col_double()
```





Getting set up

- Using R Studio on campus is a little different to how you'd use it on your personal computer
- There's a special way of starting it, and there's a special place where you need to store your files
- For the smoothest most hassle-free experience you need to make sure you follow the instructions carefully

And remember, the computers in these labs haven't been used for over a year!

So things might be a bit slow to get going today

Saving and accessing your files

When you're using the lab computers you save all your work on OneDrive

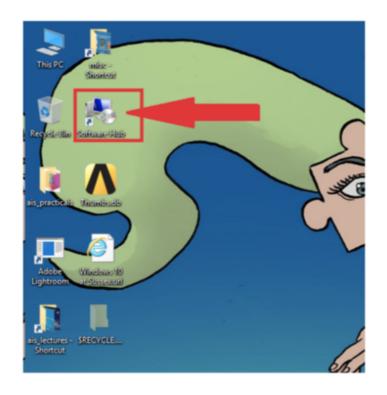


- You first need to login to your Sussex OneDrive my clicking on the OneDrive icon on the task bar and entering your login details
- You can also download the OneDrive app onto your home computer so that you can access your work from off campus

Whenever you come into to use the lab computers you should always make sure you're sure that you're signed into OneDrive before doing anything else.

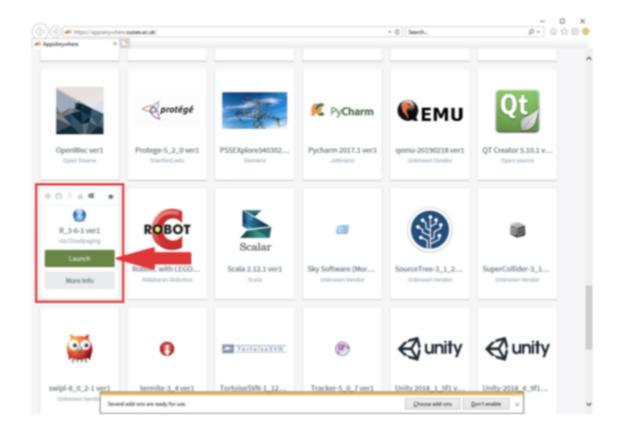
After if you've signed in once then you *should* be automatically signed in but you should always double check

Starting R Studio on Campus



Double click the software hub icon to get started

Starting R Studio on Campus



Find the RStudio icon R and click Launch

If the launch icon is greyed out and says Authorisation needed then just wait a sec or click the refresh icon

Installing the packages we need

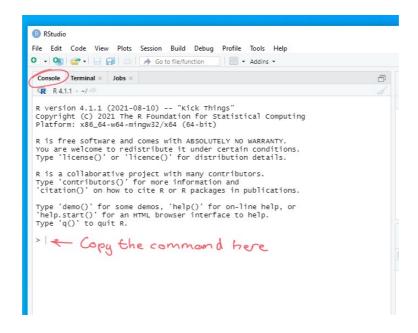
The last step to get everything set up for the course is to *install the "packages"* we need...

We'll learn more about what packages are in the coming weeks, but for now you can just following the instructions:

Installing the packages we need

Copy and paste the text below into RStudio in the "console" window:

source("https://files.mindsci.net/install.r")



You can also find the command on the Week 1 Canvas page

Practical task: SMARM study

- As part of this module, you will have weekly quizzes that assess your understanding of topics covered in the tutorials & practicals
- For this week, instead of a quiz, we have a survey for you to complete, if you
 complete the survey and pass the attention checks, you get an automatic 100% for
 your first quiz mark
- The survey covers your attitudes, opinions, and experiences with statistics, maths, and coding, with some questions about anxiety and gender identity, & we also want to use your responses to link to your attendance, & marks etc.
- You can access the Qualtrics link on Canvas, when you've finished the survey, enter
 the completion codes in the quiz (you can still participate in the survey, but not
 consent to the study with no impact on your quiz mark & no impact on the practical
 today)
- Make sure to read all the consent information this is a real study

Attendance

Practical 1 attendance pin:

Practical 2 attendance pin:

Practical task: study design

The aim of the practical task today is to get us *thinking about science* so we're going to do a little brain-storming session

For the brain-storming session, we'll be using Etherpad to work together in groups

In your groups you'll be brain-storming:

- a poorly constrained psychology study: One where it's difficult to clearly define things we're manipulating and measuring
- an impossible psychology study
- a study that is not useful in the real world
- bias in psychology studies and bias in publishing psychology studies

Tasks for next week

- Complete the first PAAS tutorial on Canvas
 - Install R & RStudio on your own computers
 - Setup OneDrive if you wish