

Assignment 1. Due 5pm Friday 5th March.

Follow all instructions and make sure you complete and submit all sections. [Total 20 marks]

Section 1 [5 marks, all-or-none (i.e., no part points)]

Throughout this module you will be expected to use R and RStudio weekly. It is highly recommended that you familiarise yourself with these environments using the computer, on which, you plan to carry out the majority of your work. If this is a lab computer then R and RStudio will already been installed. However, if you plan to use your personal computer then you will need to install R and RStudio. If this is the case follow the instructions given in the course book to download and install both R and RStudio.

To receive the marks for this section you must demonstrate to one of the TAs, or myself, that you've familiarised yourself with these environments. Using either a lab or your personal computer you should demonstrate to a TA or myself that you can competently open RStudio, read in the .csv file linked to in the course book, load the collection of tidyverse packages via `library(tidyverse)`, use the `glimpse()` command to view the dataset, and briefly explain the output printed. Note you should ensure that you have installed the tidyverse packages first using `install.packages("tidyverse")`.

You should use the lab times to do this. If you have a very good reason you cannot attend one of the three labs then you should contact me c.jonestodd@auckland.ac.uk to organise something else. Once you've successfully demonstrated the above steps then you will be given a unique code you should enter into CANVAS which will ensure your marks.

Section 2 [5 marks, all-or-none (i.e., no part points)]

CANVAS Discussion: write an example Piazza post and comment on one other.

Whatever the old adage says there are good and bad questions. It's not generally what's being asked but how! See some examples below from this course last year (don't worry about the material mentioned yet!). Main issues with the lefthand question include 1) lack of detail, and 2) no sign the student has attempted anything, 3) no specifics: what in particular are they trying to achieve. The righthand question is great, it shows the student has thought about the issue and has engaged with the material, the screenshot is the exact sort of detail required.

So to help yourselves and us use the CANVAS Discussion to draft your own **informative** Piazza question based on something you've come across this week. For example, did you come across an error using RStudio? If so what issue is it causing? What is the error message? What have you tried to do to fix it? These are all good things to aid us in helping you! A question should contain **all** the details required to answer it, don't make the answerer go digging.

In addition to your example question you need to comment on one other post to receive your marks. In your comment use the *compliment sandwich* format in giving feedback (i.e., one thing you liked, one thing you thing could be improved to clarify the question, and then another thing you liked about the post).

question @621 • 64 votes

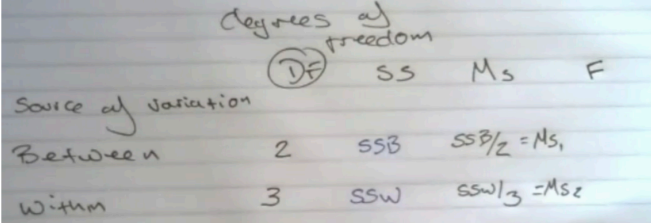
stop following

executive assignment

How do we manipulate and explore our data in R?

Degrees of Freedom

Hi, I am quite confused as to why, in the example video, the between treatments had 2 degrees of freedom but the within treatment had 3 degrees of freedom. I think I'm confused as to what we define as a unique piece of information or what kind of info contributes to the degrees of freedom.



A handwritten table on lined paper titled 'Degrees of Freedom'. The table has four columns: 'Source of variation', 'Df', 'SS', and 'F'. The first row is for 'Between' variation, with 'Df' as 2, 'SS' as SSB , and 'F' as $SSB/2 = MS_B$. The second row is for 'Within' variation, with 'Df' as 3, 'SS' as SSW , and 'F' as $SSW/3 = MS_E$.

Source of variation	Df	SS	F
Between	2	SSB	$SSB/2 = MS_B$
Within	3	SSW	$SSW/3 = MS_E$

Section 3 [10 marks]

Answer the MCQ and short answer questions based on this week's material on CANVAS.

Section 4 [optional, but prizes up for grabs]

Each week you'll be given the opportunity to take part in a meme competition (multiple submissions encouraged). On CANVAS there is a dedicated meme competition channel for this module. Create and upload a meme based on the materials we've covered for the chance of winning a prize. Judging will be based on your peers' upvotes of your creation accumulated over module 1. Do not vote for yourself but feel free to peruse the creations and vote for your peers. Note that the TAs are eligible too, so get your best meme game going!