Digital Methods: Learning Journal

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1.1 Thoughts/intentions:

My thoughts on how it was going to be working with R and RStudio was very much based on the R-tutorial. I had read the R-tutorial before the hands-on-session and I therefore had a good indication of how to move around in R. That was also why I didn't feel lost about this assignment. I knew that I was going to use R for my final project and therefor my intention with this assignment was to fully understand how to use R and RStudio, in order to learn the different possibilities when working with this kind of software.

1.2 Exercises:

Use R to figure out how many elements in the vector below are greater than 2. (You need to filter out the NAs first). rooms <- c(1, 2, 1, 3, 1, NA, 3, 1, 3, 2, 1, NA, 1, 8, 3, 1, 4, NA, 1, 3, 1, 2, 1, 7, 1, NA)

- I started by opening RStudio and made sure that I was in the directory I had created at the hands-on-session by typing:

  getwd()

- This command asks the computer "where am I now"? It was important to be in the right directory because I had saved my script from the hands-on-session, and I knew that this could give me some inspiration on how to solve the four exercises.
- I opened a new script by pressing the + in the left-hand corner of the window and chose R script. This is a good feature in RStudio, because it allows you to document all of your steps. In this window I typed:

  rooms <- c(1, 2, 1, 3, 1, NA, 3, 1, 3, 2, 1, NA, 1, 8, 3, 1, 4, NA, 1, 3, 1, 2, 1, 7, 1, NA)

- This command assigned the vector () to the object named rooms. Then I typed:

  rooms_clean <- na.omit(rooms)

- This command removed the NA’s and created a new vector containing only the number of rooms in each household. This new vector was assigned to the object named rooms_clean. Then I typed:

  rooms_above_2 <- rooms_clean[rooms_clean > 2]
- This command created a new vector containing all of the rooms of the households from the object rooms_clean that had more than two rooms and placed them in a new object called rooms_above_2. Then I used one last command to ask RStudio how many of the households had more than 2 rooms by typing:

  length(rooms_above_2)
- The result is 8.

What is the average number of rooms (result of running mean() function) in the above 'rooms' vector? Again, best remove the NAs first.

- In order to know the average number of rooms I typed:

  mean(rooms, na.rm = TRUE)
- Mean is a function which allows me to find the average number of the vector (). Rooms are the object which I assigned the vector to above. Na.rm means NA remove. TRUE is a logical vector I used to test for objects that are logical, which in this case means that it only showed the numbers and not the NA. If I had written FALSE instead of TRUE the result would have been NA.
- The result is: 2.318182 rooms pr. household.
- In order to round the number, I used the function:

  round(x = 2.318182, digits = 0)
- Now the result of rooms pr. household is: 2

What type of data is in the 'rooms' vector? What function helps you determine the answer?

- To solve this exercise, I typed:

  class(rooms)
- This function askes RStudio which type of data is in the () – in this case the object named rooms.
- The result: numeric.

Inside your R Project (.Rproj), install the 'tidyverse' package and use the download.file() and read_csv() function to read the SAFI_clean.csv dataset into your R project as 'interviews' digital object (see instructions in https://datacarpentry.org/r-socialsci/setup.html and 'Starting with Data' section). **Take a screenshot** of your RStudio interface showing a) the script you used to create the object, b) the 'interviews' object in the Environment and the c) structure of your R project in the bottom right Files pane. Save the screenshot as an image and put it in your **AUID_lastname_firstname** repository inside our Github organisation (github.com/Digital-Methods-HASS). In this Blackboard submission, list the URL leading to the screenshot in your github repository.

- https://github.com/Digital-Methods-HASS/auau565919_Kendon_Mette

1.3 Final Thoughts

My overall thought on this assignment was that it was not too difficult nor too easy. The R-tutorial was a great help! After completing the exercises, I have a much better idea of how to use RStudio in general but also in regard to my final project. I think that RStudio is perfect for my dataset because it allows you to interact with your dataset in a lot of different ways, whilst saving your steps as a script. Besides this, I want to use Overleaf for my final project, but I am struggling a bit with the format. Some of the characters I used for this assignment did not go well in Overleaf and therefor I had to move my learning journal into Word. I hope that I can get a handle on how to use Overleaf before the final project, because I would like to use it.