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Reproducible Analyses
Practice

Open Science Workshop – Part II

OUTLINE

1. The Basics (20 min)

Learn the basics by working through the file RM_01_GettingStarted.rmd

2. Feedback (10 min)

Obstacles when working with RMarkdown

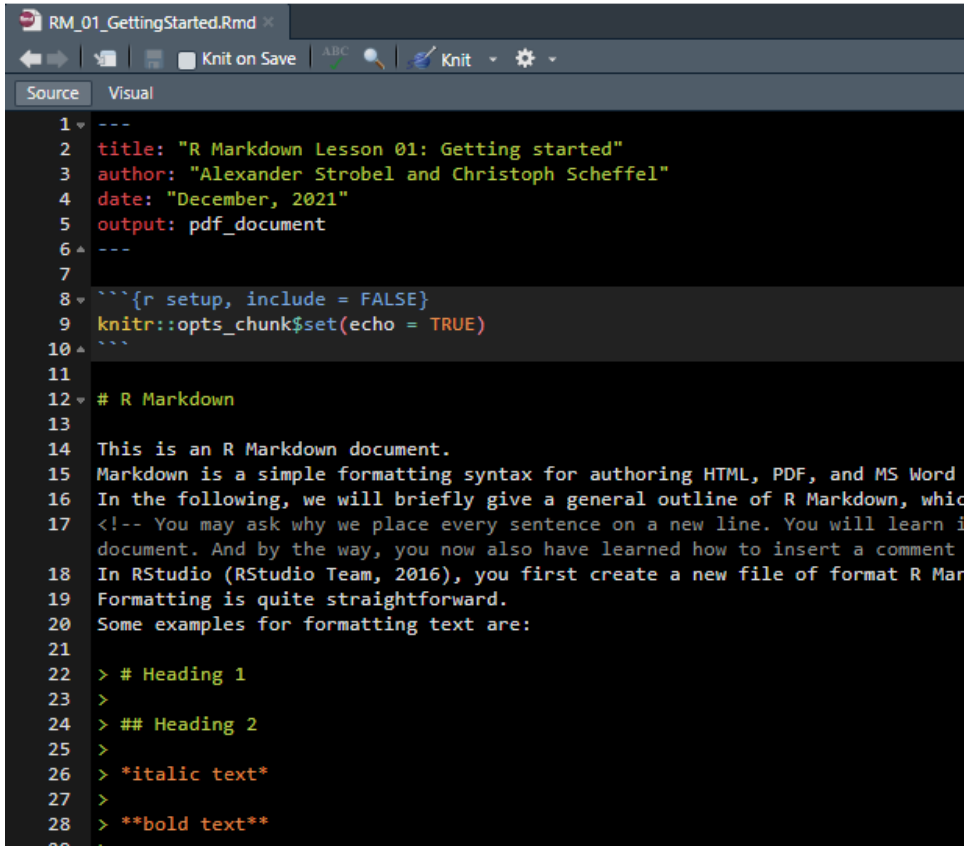
3. Work on your own manuscript (60 min)

PRACTICE – PART 1
THE BASICS – 20 MIN

Learn the basics by working through the file RM_01_GettingStarted.rmd!

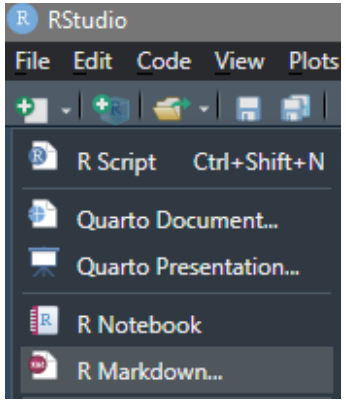
- open the file RM_01_GettingStarted.Rmd
- Work through the file locally on your computer. Also see how the file is displayed as a PDF document when you click on *knit* 

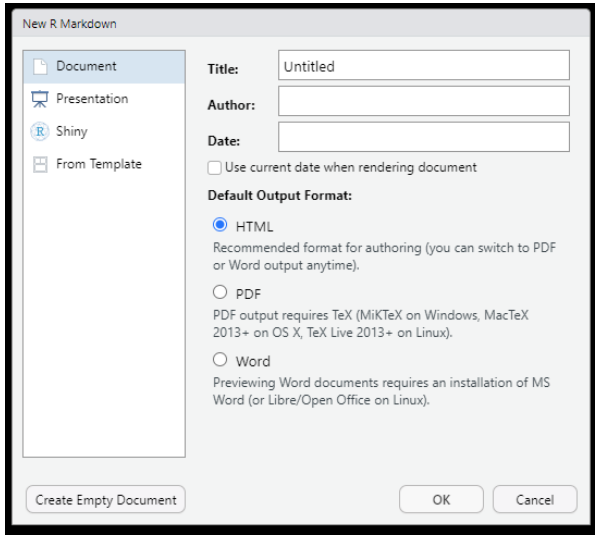
- Get together in groups of 2 - one person who already has experience using R and RMarkdown and one person who is just getting started with the software.



PRACTICE – PART 1
FEEDBACK – 10 MIN

PRACTICE – PART 1
OWN MANUSCRIPT – 60 MIN





Create a method section of your own manuscript!

- Open the manuscript and data sheet you brought with you
- Create a new, empty RMarkdown File

- Start by creating a code chunk for the setup
  - Install all relevant packages you need to import your data (e.g., *readxl* to import Excel files in R)
  - Import your data sheet in R

```
1  ---
2  title: "Method"
3  output: html_document
4  ---
5
6  ```{r setup, include=FALSE}
7  knitr::opts_chunk$set(echo = TRUE)
8
9  library(readxl)
10
11 data_ESER <- readxl::read_xlsx("data_all_ESER.xlsx")
12
13 ```
```

PRACTICE – PART 1
OWN MANUSCRIPT – 60 MIN

Create a method section of your own manuscript!

- Create a second code chunk to calculate relevant variables for the method part (e.g., mean and standard deviation of age)
- Consider also the formatting of these variables!

- Copy the existing text from the manuscript and paste it into the method section
- Remove all numbers (for example, number of subjects) and replace them with the appropriate variables

- Modify your dataframe: Delete a few participants in the first code chunk ("setup"). Knit the document again and see what happens

PRACTICE – PART 1
ADDITIONAL TASK

Start to write your results section!

- Create a new R chunk
- Calculate a simple linear model or ANOVA with the data you imported
- Report your results in a short paragraph

- Check, whether the *papaja-Package* has been installed and loaded correctly
- take a look at the function *apa_print()*
  - What arguments and values can be passed to this function?
  - Reports the results of the model calculated above using the function!

OUTLOOK

Preparing APA Journal Articles

papaja - Package

Workshop on papaja by Frederik Aust:

slides and video online:

https://leibniz-psychology.org/ptos/r-markdown-papaja/