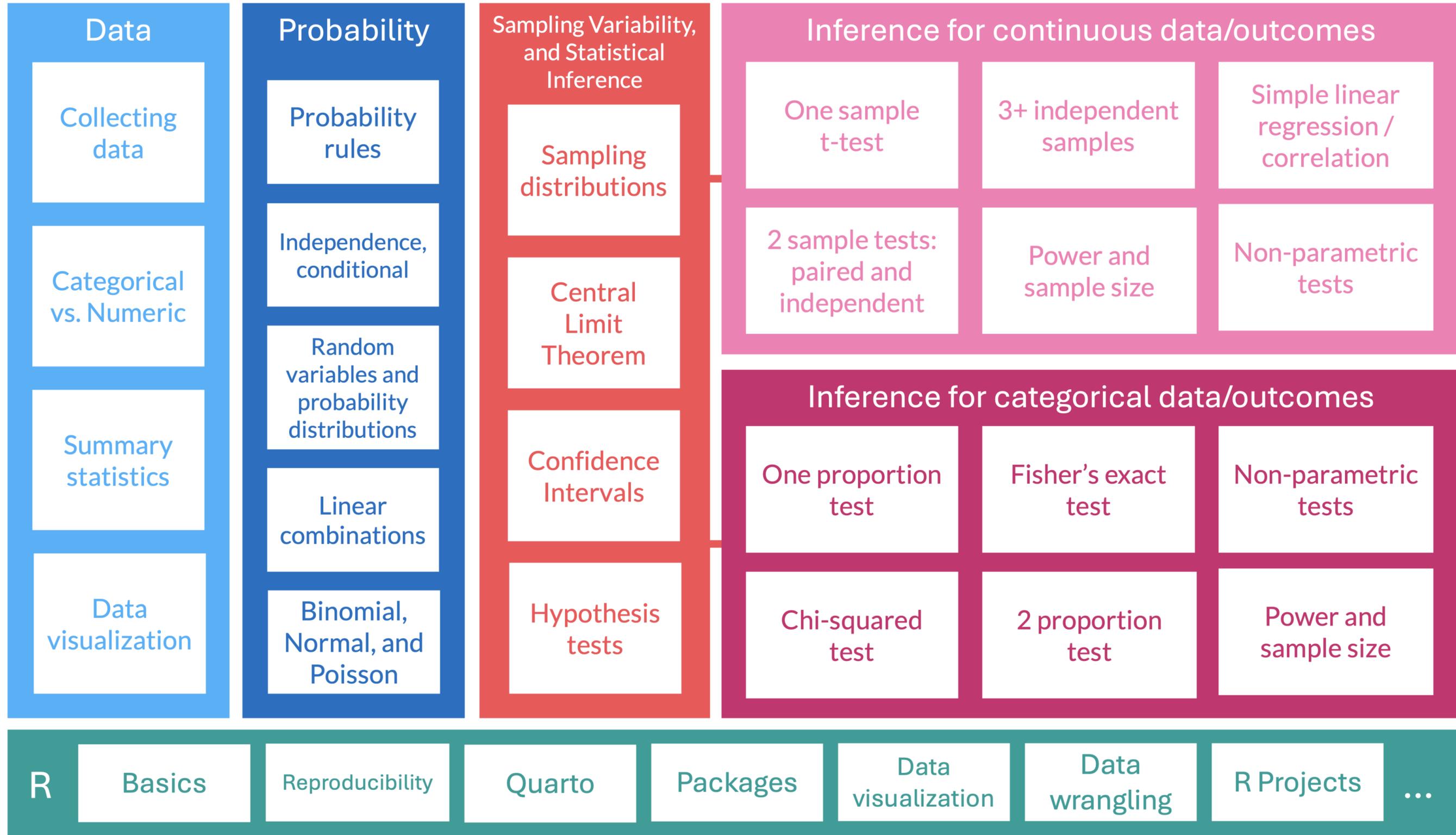


R04: Reproducibility, File Organization, and Projects

Nicky Wakim

2024-10-09

Where are we?



Using OneDrive

- We all have free access to OneDrive to store files
- **Let's login** into our online accounts
- **You can also download OneDrive for your desktop**
 - Allows you to access the OneDrive from your computer's interface instead of the browser
 - Creates a link between your computer and the cloud!
- Let me show you mine
 - I can access all the files through RStudio as well!
- Let's take a couple minutes to log into OneDrive

Folder organization

- Make a folder for our class!
 - I suggest naming it something like `EPI_525_F24` to indicate the class and the term
- Make these folders in your computer
 - Only make them in OneDrive **if** you have a desktop connection
- For a project, I have the following folders
 - Background
 - Code
 - Data_Raw
 - Data_Processed
 - Dissemination
 - Reports
 - Meetings
- For our class, I suggest making one folder for the course with the following folders in it:
 - Data
 - Homework
 - Lessons
 - R_activities
 - And other folders if you want
- Take a few minutes to create these folders

Aside: folder and file naming

There are a few good practices for naming files and folders for easy tracking:

1. Keep the name short and relevant
2. Use leading numbers to help organize sequential items
 - I can show you my lessons folders as an example
3. Use dates in the format “YYYY-MM-DD” so that files are in chronological order
4. You can label different versions if you would like to
5. Use “_” to separate sections of the name
 - I also use this to separate words, but some people say you should use “-” to separate words

Let's go into `R_activities`

- Make a folder called something like `R04_work`
- We are going to stay in the `R_activities` folder
- Now that we have some folders in order, we can start creating a project

Creating project in RStudio

- Way to designate a working directory: basically your home base when working in R
 - We have to tell R exactly where we are in our folders and where to find other things
 - A project makes it easier to tell R where we are
- Basic steps to create a project
 - Go into RStudio
 - Create new project for this class (under **File** or top right corner)
 - I would chose “Existing Directory” since we have already set up our folders
 - Make the new project in the **EPI_525_F24** folder
- Once we have projects, we can open one and R will automatically know that its location is the start of our working directory

The nice thing about R projects

- 5 minute video explaining some of the nice features of R projects

<https://rfortherestofus.com/2022/10/rstudio-projects>

Reproducibility

- Research data and code can reach the same results regardless of who is running the code
 - This can also refer to future or past you!
- We want to set up our work so the entire folder can be moved around and work in its new location

Nicky's process for R projects

- Let me show you my process
 - I will create one in my Sample_folder
 - I will show you how I switch between classes
- Make a project file in your class folder!

If time, we will move to R05: Intro to Quarto!

