Checklist – experimental design

* Draft a design
  + Control, randomize or measure all potentially confounding variables
  + Choose optimal balance / selection of variables according to your hypothesis
  + Blocking - try to group treatments together, to reduce effect of, separate replicates 🡪 aim is to make unmeasured confounding variables equal, and avoid correlation
  + Minimize work / maximize practicability – if you can double your samples at the cost of a bit of correlation, it may be worth it
* Check
  + Play through the processes of collecting your data: simulate it in your mind or in R, make up some data, write it down. Everything seems OK?
  + Play through the process of analysing your data. Which method? Can you answer your question? Do a power analysis!
* Revise if necessary