

Teaching R to social science undergraduates

F. Briatte^a and I. Petev^b

^aUMR CNRS Pacte
Institut d'Études Politiques de Grenoble
19 rue Pajol, 75018 Paris
f.briatte@ed.ac.uk

^bObservatoire Sociologique du Changement
Sciences Po
1, rue Stendhal, 75020 Paris
ivaylo.petev@ensae.fr

Keywords : Statistics, Teaching, Social Sciences.

This lightning talk is based on our recent experience teaching R (through RStudio) to a small group of undergraduates with social science backgrounds. It covers:

1. the course itself, its student audience, and how it all went;
2. what we think could be good teaching practices in that area; and
3. what we believe could help teach R to non-programmer audiences.

The talk will focus on three particular aspects of our teaching experience:

- the importance of teaching applied, empirical examples to enhance interest and understanding [1], as well as student ability to link statistics and real-world situations [2]
- the importance of teaching data retrieval and management skills along the common curriculum of introductory statistics
- challenges posed by the R software environment to absolute beginners, such as interpreting error output and reproducibility at scale

Our small-scale teaching experiment intends to show that R can be effectively taught to audiences whose specialized skills lie outside of statistical computing.

All material for our course and this talk will be made available through GitHub in replicable formats, along with examples of student work. Our syllabus is attached to this abstract.

Note: our course was taught in English, and we offer to write our talk in English, but we both speak French and are naturally willing to use French for any or all parts of our talk.

References

- [1] Genolini, C., Driss, T. (2010). Éveiller l'intérêt pour la statistique par l'exemple. *Statistique et Enseignement*, **1**(2), 49-57
- [2] Yilmaz, M. R. (1996). The Challenge of Teaching Statistics to Non-Specialists. *Journal of Statistics Education*, **4**(1): <http://www.amstat.org/publications/jse/v4n1/yilmaz.html>