Swiss Center for Affective Sciences

WORKSHOP

Thursday 19th & Friday 20th November 2020 09:00 – 17:00

Campus Biotech
Room H8.01.D
9, chemin des Mines
Geneva

The analysis of pre-test post-test studies with R

Prof. Gabriel Baud-Bovy

(San Raffaele University & Italian Institute of Technology)

A classic experimental design to test the efficacy of a treatment – a new training or educational method for example – is to measure individuals (often students in schools) at two occasions: before and after the treatment. In this seminar, I will discuss this design, the regression toward the mean phenomenon, the role of the control group, the statistical methods to analyze it. The second objective of this seminar is to show the strengths of R. While there are methods to conduct all sorts of statistical tests in R, it would be reductive to think that R is only a tool to conduct statistical analyses. In this seminar, I will use R to simulate data sets and write reports that combine R code with texts and figures.
In the first day, I will focus on R and show how to conduct reproducible research and write reports with R. I will cover the basics of reading a data set, making plots, simulating datasets and some simple statistical methods. The second day will be focused on statistical issues related to pretest-postest studies and show examples of more advanced statistical methods, including linear mixed-effect models and latent change score models.

Gabriel Baud-Bovy is Assistant Professor at the Faculty of Psychology of San Raffaele in Milan, and Researcher at the Italian Institute of Technology in Genova, Italy. He studied in Geneva, Switzerland, where he obtained a License in Computer Science and a PhD in Psychology. He is not a statistician but has used R for over 20 years. His research interests are focused on psychophysics, haptics, data analysis and the development of new technologies.

Swiss Doctoral School in Affective Sciences

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