

**École hivernale de méthodologie
CÉCD**

Lundi 1 février 2021

13h

Audrey Gagnon

L'analyse de données qualitatives : l'approche des cadres

1h30 – Français/Anglais

Cet atelier propose une introduction à l'analyse des cadres (*framing analysis*). Mobilisée principalement dans les disciplines de la science politique, de la communication et de la sociologie, cette approche permet d'analyser la façon dont les acteurs (les élites politiques, les médias ou encore les mouvements sociaux) sont engagés dans des activités de production, de maintien et de reconstruction du sens pour leur audience, que ce soit à l'intention du grand public, de partisans, de sympathisants ou d'opposants. Analyser les cadres produits par ces acteurs permet, entre autres, d'identifier leurs intérêts, valeurs, priorités et objectifs. L'atelier vise à expliquer les fondements et les implications théoriques de l'approche des cadres, tout en soulignant ses apports et ses limites.

15h

Olivier Bergeron-Boutin

Conjoint experiments

2h – English

This workshop will provide an introduction to the use of conjoint experiments in political science and present the main tools required for their implementation using Qualtrics and R. We will begin with a brief primer on the growth of conjoint experiments in recent years: why they have become popular, what they are good at estimating, and how they have been used in the literature. We will then focus on some estimation properties and assumptions that are specific to conjoint experiments and crucial to keep in mind. The third section will cover the implementation of a mock conjoint experiment in Qualtrics, a widely used survey platform. Note that this section will be a bit more technically involved, but all necessary materials will be provided. Finally, we will extract the raw data from Qualtrics and analyze it in R (some knowledge of the latter is assumed).

Mardi 9 février 2021

13h

Olivier Jacques

Panel data analysis

2h – English

The workshop will address issues in modelling time-series cross-sectional data, otherwise known as panel datasets. This type of data is very common in political science as they involve that the data has multiple temporal observations for each units of analysis (multiple individuals overserved overtime, multiple countries observed overtime, etc.). The workshop will first deal with the issue of whether the data can be “pooled”, meaning that we can ignore the fact that some observations are gathered from the same unit (country, individual). Then it will introduce the concept of random and fixed effects to control for unexplained unit-level differences in outcomes across units.

Then, the workshop will move towards dealing with stickiness overtime and the fact that the data in one year almost certainly depends on the data in the year before (autocorrelation), which is the main issue in time series analysis. This will involve giving tips to detect autocorrelation of the error term as well as fixing and modelling autocorrelation, notably with the use dynamic models with lagged dependent variables. Finally, the workshop will the deal with the issue of stationarity in the time series and show how to detect a unit root time series, as regressing two-unit root series together often involves a spurious regression. I will introduce the concept of first-differencing the data to deal with the unit root process.

Mercredi 17 février 2021

13h

Fernando Feitosa

Title of workshop: “Implementing a synthetic control model in R: A guide”

1h30 – Français

Difference-in-differences represent one of the most common methods for estimating causal effects. However, it is often the case that the parallel trends assumption is violated, in this way preventing a reliable estimation of causal effects through a difference-in-differences approach. Aware of this, in 2010, Abadie, Diamond, and Hainmueller proposed a new statistical modeling approach that allows for creating a synthetic control from portions of different control units. This synthetic control will more perfectly match the treated unit prior to the treatment than the original control units. As such, the “synthetic control” model has been used in various research, such as on the political consequences from natural disasters (Katz and Levin 2016) and compulsory voting rules (Bechtel, Hangartner, and Schmid 2018; Fowler 2013; Singh 2019). Inspired by my own use of the “synthetic control” model (Feitosa, Blais, and Dassonneville. 2020), I will teach participants in this workshop how to easily implement a synthetic control model in R. In addition, they will leave the workshop knowing what is a “synthetic control” model and the (many) advantages and (few) disadvantages of this approach for causal analysis. No prior knowledge of this topic is expected from participants.

Proposed plan of the workshop:

- What is a synthetic control model
- Implementing a synthetic control model in R
- The advantages and disadvantages of a synthetic control model for causal analysis

15h

Florence Vallée-Dubois

Introduction à la visualisation de données avec R

2h – Français

Dans cet atelier, les étudiant.e.s apprendront comment visualiser des données avec R. Nous survolerons aussi certains principes fondamentaux de la visualisation des données, incluant entre autres les limites cognitives de la perception visuelle et les problèmes causés par les illusions d'optique. Nous verrons:

- Les principes théoriques de la visualisation des données;
- Comment choisir le bon type de graphique;
- Comment lier des données à un graphique;
- Comment manipuler le format d'un graphique;
- Comment visualiser des résultats de régression.

Public cible: Les étudiant.e.s qui participent à cet atelier devraient savoir comment utiliser R (ouvrir des données dans R, connaître la syntaxe de base), mais n'ont pas besoin d'être des experts.