



École hivernale de méthodologie 2019 | Methods Winter School 2019

Lieu | Location: Thomson House #404, Université McGill

Date: 24.01.2018

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| 9:00 | Arrivée des participants Participants' arrival |
| 9:15-11:00 | Atelier #1 Workshop #1 Colin Scott - Introduction to the Design and Analysis of Survey Experiments using Qualtrics |
| Pause Break | |
| 11:15-13:00 | Atelier #2 Workshop #2 Audrey Gagnon - Les méthodes d'entrevues |
| Pause dîner Lunch break @ Thomson House | |
| 14:30-16:15 | Atelier #3 Workshop #3 David Wutchiett - Multiple imputation with R |
| Pause Break | |
| 16:30-18:15 | Atelier #4 Workshop #4 Andrew McCormack - ggplot2 customization |
| 19:30 | Activité sociale (à déterminer) Social activity (TBD) |

*Cet horaire est encore sujet à changement. | This schedule is still subject to change.

Description des ateliers | Description of workshops

Introduction to the Design and Analysis of Survey Experiments using Qualtrics by Colin Scott

This workshop offers an introduction to the design and analysis of survey experiments using the Qualtrics survey platform. Following an introduction to the logic of experimentation and some common problems encountered in experimental research, participants will learn how to develop their own survey experiment using various stimuli (e.g., vignettes, images, question ordering). In the second part of the workshop, participants will be introduced to common statistical techniques in the analysis of experimental data. After completing the workshop, participants will have an understanding of how to design and execute an experimental manipulation within an online survey and come away with a Qualtrics template from which they can adapt and build on for their own research purposes.

Les méthodes d'entrevues par Audrey Gagnon

Cet atelier propose une introduction à différentes méthodes de collecte des données obtenues par le biais des entrevues. Les méthodes des entrevues dirigées et semi-dirigées seront abordées. Notamment, diverses techniques afin de conduire des entrevues semi-dirigées, telles que la méthode interprétative de récits biographiques ou celle des raisonnements contrefactuels, seront présentées.

L'atelier a pour objectif d'accompagner les étudiants à comprendre comment préparer, structurer et conduire des entrevues. Comment approcher et contacter des répondants? Comment sélectionner une technique d'entretien adéquate permettant de répondre à une question de recherche? Comment conduire des entrevues de façon à obtenir les informations qui nous intéressent? Comment adapter nos entrevues à nos répondants? Tel est le genre de questions qui seront abordées durant cet atelier.

Un moment sera alloué à la fin de l'atelier afin d'illustrer les outils méthodologiques présentés à l'aide de cas de recherche empirique. Les étudiants pourront, s'ils le désirent, présenter leurs recherches afin de réfléchir collectivement à la sélection d'une méthode d'entrevues ou à la façon de raffiner l'utilisation d'une méthode d'entrevues.

Multiple imputation with R **by David Wutchiett**

Missing values within data is a common challenge during data analysis that if not addressed can bias results through the exclusion of incomplete cases and reduce statistical power. In this workshop I will go over concepts related to and the process for conducting multiple imputation in R using the 'mice' package. Multiple imputation is a statistical technique used to generate model-based estimates for missing values in order to conduct statistical analyses, reducing the need to discard any collected information. The multiple imputation process involves such steps as: missing value model specification, value simulation incorporating random variation, the completion of desired analyses across multiple imputed data sets, and singular parameter point estimate calculation through the averaging of results and through the combination of variation estimates across missing and observed value cases. Concepts related to evaluation and applicability of missing imputation will be discussed such as missing at random, model specification considerations, algorithm chain convergence, and the particular technique-specific benefits of multiple imputation as an imputation approach. The practical application of multiple imputation will be emphasized including code examples, explanations of functions and their parameters, as well as practices related to diagnostic visualization generation and their evaluation.

ggplot2 customization **by Andrew McCormack**

This workshop introduces students to mapcan, a new R package that provides convenient tools for plotting Canadian choropleth maps and choropleth alternatives. Standard choropleth maps tend to produce visually misleading evidence, overemphasizing larger geographical units by assigning them a stronger visual weight. As a result, standard choropleth maps are often uninformative or misleading when it comes to visualizing statistics for Canadian geographic units (e.g. federal ridings, census districts, and provinces). mapcan provides users with tools to create population cartograms, tile grid maps, and hexagonal maps in the Canadian context, implemented with R and ggplot2. The first part of the workshop will be an overview of the fundamentals of geographic data visualization in R and ggplot2. In the second part of the workshop, students will learn how to use mapcan's functions with their own data to create a variety of geographic visualizations at different boundary levels in Canada. Some background in R will help in this workshop, although it is not a requirement.