

Essai contrôlés randomisés (RCT)

Tanguy Bernard

Intitulé	Essais randomisés contrôlés : méthodes avancées et application
Intitulé en anglais	<i>Randomized Control trials: advanced methods and application</i>
Enseignant	Tanguy Bernard
Volume horaire	20h CM
Année d'étude	M2 APP & EADD & CCPD
Objectifs et compétences développées	<p>Randomized Control Trials (RCTs) are increasingly used to help design and evaluate economic policies, as recognized by the 2019 Nobel prize awarded to promoters of this approach. This course aims to explore recent methods in policy evaluation based on RCTs. The objective is for students to understand RCTs and to be able to conceive their own research-evaluation design using these approaches.</p> <p>The first part of the course reviews the technical basis of RCTs, from selection biases in causal inference, to various types of RCTs approaches, to sample design and related statistical power calculations. The course then reviews potential pitfalls with RCT approaches that one needs to account for when designing a study (e.g. experimental biases, contamination and externalities, general equilibrium effects, external validity). The course will largely rely on examples of recent RCTs in the field of economics in low and high-income countries.</p> <p>In the second part of the course, students are asked to prepare a research proposal, using an RCT approach. Working in groups, students must choose a research-evaluation question, relate it to existing literature, work with existing dataset in order to perform power calculations, propose an implementation timeline and corresponding budget. Students are then asked to present their research-evaluation proposal in class.</p>
Contenu	<p>Part 1: RCTs</p> <ul style="list-style-type: none"> • Recent development developmet of RCT • Selection biases and causal inference • Various approches to RCTs • Threats to validity in RCTs • Power calculations <p>Part 2 : Designing a research proposal for an RCT</p> <p>Group work and class presentations</p>
Pré-requis	Econometrics of causality (M1)
Modalités d'évaluation	Class presentation of research proposal
Outils,	<i>Support: slides. Référence principale :</i>

support de cours et références bibliographiques	Duflo, Esther, Rachel Glennerster, and Michael Kremer. "Using randomization in development economics research: A toolkit." <i>Handbook of development economics</i> 4 (2007): 3895-3962., available at https://economics.mit.edu/files/806
--	--