EGAP Learning Days Agenda

EGAP WEST AFRICA REGIONAL HUB/CERAP - LEARNING DAYS

ABIDJAN, CÔTE D'IVOIRE
18 – 22 JULY 2022

This five-day meeting will consist of a combination of design clinics and lectures on topics critical for designing impact evaluations and randomized field experiments intended to measure the effects of policies, interventions, and programs on policy outcomes. Lecture topics will include the potential outcomes framework, randomization, hypothesis testing, statistical power, and estimation of treatment effects. The focus of the workshop is on experimental methods. Throughout the week participants will work to develop their own research designs together with peers and the instructor team.

Workshop Venue: CERAP Campus, 15 Avenue Jean Mermoz, Cocody

Lodging: Heden Golf Hotel, 82HG+WVF, Abidjan, Côte d'Ivoire

Timing: The workshop starts on Monday 18 July at 8AM and closes Friday 22 July at 5PM

Organization
The Learning Days are organized through the EGAP West Africa Regional Hub at CERAP. The Regional Hub is led by Brice Bado (BB), with support from Boris Meviekpon (BM). All of EGAP's workshop activities are led by Trainings & Methods Co-Directors Nahomi Ichino (Emory University, NI) and Graeme Blair (UCLA, GB). The workshop instructors are Jessica Gottlieb (University of Houston, JG), Gareth Nellis (UC San Diego, GN), Daniel Rubenson (Toronto Metropolitan University, DR), Alyssa Heinze (UC Berkeley, AH), Salif Jaiteh (Columbia University, SJ), and Horace Gninafon (Université Laval, HG).

Study material
- Please bring a laptop. Make sure you have R and Rstudio[1] installed. See notes below.
- Lectures will be based on the curriculum in *The Theory and Practice of Field Experiments: An Introduction from the EGAP Learning Days* by Bowers, Voors, and Ichino, which is available in both English and French.
- During the workshop materials will be shared via Dropbox.

Preparation before the workshop
- Please prepare a brief (3 minutes) statement to introduce yourself (who you are, where you work, what are your expectations for the Learning Days) and to present your project and research question that you will work on during the workshop. The workshop will focus on experimental methods, i.e. where an intervention (program, treatment) is implemented using randomization. It will not cover non-experimental methods (e.g., PSM, DD, RD, etc). If you would like to discuss potential research project options with us in advance of the training, please send Nahomi Ichino (nahomi.ichino@emory.edu) an email. We are happy to discuss!

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[1] Download from http://www.rstudio.com/products/rstudio/download/ . If you already prefer using R with an editor other than RStudio, you do not need to install RStudio.

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- Make sure you have [R](#) and [Rstudio](#) installed. [Appendix B](#) of *The Theory and Practice of Field Experiments: An Introduction from the EGAP Learning Days* provides information on how to download R and RStudio. Please download both programs prior to the workshop <u>and</u> familiarize yourself with the material provided in the guide. In particular, we provide lines of code in section B.3.1 that you should execute to download several auxiliary files ("packages") that we will use during Learning Days. If you have difficulty downloading R, RStudio, or the packages, please email Salif at s.jaiteh@columbia.edu for assistance.
- Before the start of the workshop, try the following short assignment in R: https://goo.gl/forms/Arxye5kJEfz3bfek2.

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Monday, 18 July 2022: Getting Started

Morning: **Introductions and Causal Inference**

8:00-9:30AM: Welcome (BB, NI, all)
- Welcome
- Introduction of the EGAP West Africa Regional Hub and CERAP
- Introduction of EGAP
- Objectives of Learning Days
- Expectations for collaboration: Ask questions (when you ask questions you are helping everyone, including the professors)! It is ok to sit or stand during lectures and discussions (just not in front of other people).
- Logistics
- **Brief** (3-min) introduction by participants -- your name, your home institution, and the research question and motivation behind your research project.

9:30AM–10:00AM: Lecture 1: Causal Inference (DR)
- Research questions: what are X and Y? What might it mean to say X *causes* Y?
- The potential outcomes framework and the fundamental problem of causal inference
- How do experiments help us learn about causality?

10:00–10:20AM: Coffee Break

10:20–11:45AM: Lecture 1: Causal Inference, continued (DR)

11:45AM–12:30PM: Discussion: Transparency and Pre-Registration (GN)

12:30–1:30PM: Lunch

Afternoon: Ethics Discussion, Research Design, and Design Clinic

1:30–2:45PM: Discussion: Ethics of Experimentation (NI, AH)

2:45–3:15PM: Lecture 2: Research Design Process (JG)
- Introducing the Research Design Form

3:15–3:35PM: Coffee Break

3:35–4:15PM: Lecture 2: Research Design Process, continued (JG)

4:15–5:30PM: R Session (SJ, AH)
- Make sure you are set up with R (all)
- Hands-on session on simple statistics in R

Evenings (strongly recommended): Office hours, available in French
- 6:15–7:15PM
- Venue: at Hotel (for participants staying at hotel), at CERAP (for local participants)

Resources
- [10 strategies for figuring out if X causes Y](#)
- [10 things you need to know about causal inference](#)
- R: http://www.r-project.org/
- DeclareDesign: https://declaredesign.org

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Tuesday, 19 July 2022: Identification and Randomization

Morning: **Randomization and Design Clinic**

8:00–8:30 AM: Day 1 Recap, Quiz

8:30–10:00AM: Lecture 3: Randomization (NI)
- Strategies for randomization: simple, block, cluster, factorial, encouragement
- Mechanics of replicable randomization
- Randomization in R

10:00–10:20AM: Coffee Break

10:20–11:15AM: Lecture 3: Randomization (NI), continued

11:15AM–12:30PM: Design Clinic
- Work on filling out Research Design Form for your study
- Focus on randomization strategies

12:30–1:30PM Lunch

Afternoon: **Design Talk, Design Clinic, and Hypothesis Testing**

1:30–2:30PM: Design Talk: Pivoting research designs: A case study from a field experiment in Nigeria (GB)

2:30–3:15PM: Design Clinic
- Work on Research Design Form
- Focus on randomization strategies

3:15–3:35PM: Coffee Break

3:35–5:00PM: Lecture 4: What is a hypothesis test for a randomized experiment? (GN)
- Fisher's test of the sharp null hypothesis of no effects and relationship with large sample tests

5–5:30PM: Recap
- Recap
- Quick go around: What did you find useful? What would you like to hear more about?

Evening: **Group Dinner**
Bus will pick up from hotel at 7:00pm
Restaurant: Jardin d'Eden (located in Riviera 3)

Resources
- [10 things you need to know about randomization](#)

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Wednesday, 20 July 2022: Estimation of Causal Effects, Statistical Inference, and Power

Morning: Policy Event

8:00–9:00AM: Day 1 & 2 Recap, Quiz

9:30AM–1:00PM: Conference on election violence reporting and political polarization/misinformation
- Location : CERAP Conference

1:00–2:00PM: Lunch

Afternoon: Estimation, Statistical Inference, Power, and Design Clinic

2:00–3:15PM: Design Clinic
- Work on Research Design Form

3:15–3:30PM: Recap of research timeline (GN, HG)

3:30–5:30PM: Lecture 5: Statistical Power (GN, HG)
- Power: What it is, relation to sample size, dispersion, standard methods, simulations

3:45–4:00PM Coffee Break

Evening (strongly recommended): Office Hours, available in French
- 6:20–7:20PM
- Venue: at Hotel (for participants staying at hotel), at CERAP (for local participants)

Resources
- [10 things you should know about the local average treatment effect](#)
- [10 things you need to know about spillovers](#)
- https://egap.shinyapps.io/spillover-app/

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Thursday, 21 July 2022: In-Class Experiment and Design Clinic

Morning **In-Class Experiment and Design Clinic**

8:00–9:00AM: COVID PCR tests at CERAP
- Bus leaves hotel at 7:30am as usual for participants staying at the hotel

9:00–9:30AM: Day 1-3 Recap, Quiz, Reflections & Suggestions of topics for Friday afternoon

9:30AM–10:20AM: In-class Experiment (SJ, DR)

10:20–10:40AM: Coffee Break

10:40–11:20: In-class Experiment, continued

11:20AM–12:30PM: Lecture 6: The Average Treatment Effect and Statistical Inference (NI/GB)
- ATE: Variance, standard errors, confidence intervals, sampling distributions

12:30–1:30PM: Lunch

Afternoon: Design Talk and Design Clinic

1:30–2:15: Lecture 6: The Average Treatment Effect and Statistical Inference, continued

2:15–3:15PM: Design Talks (choose one)
- Design Talk - To Knock, Call or Email? Trade-offs of Recruitment and Recontact Strategies (JG, in French)
- Design Talk - The Pitfalls and Promises of Negotiating Over Randomization (DR, in English)

3:15–3:35PM: Coffee Break

3:35–4:00PM: Overview of Presentation Format (NI/GB)

4:00–6:15PM: Design Clinic
- Work on Research Design Form

6:15–6:30PM: Recap
- Recap
- Quick go around: what did you find useful? What would you like to hear more about?

Evening (strongly recommended): Office Hours, available in French
- 7:00–8:00PM
- Venue: at Hotel (for participants staying at hotel), at CERAP (for local participants)

Resources
- [10 things you need to know about statistical power](#)
- [10 things you need to know about covariate adjustment](#)
- [10 things you need to know about multiple comparisons](#)
- https://egap.shinyapps.io/Power_Calculator/
- [DeclareDesign Guide](#)

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Friday, 22 July 2022: Design Presentations and Additional Topics

Morning: Design Presentations

8:00–8:30AM: Day 1-4 Recap, Quiz

8:30–10:00AM: In-class experiment, with analysis using R, continued (NI, SJ)

10:00–10:20AM: Coffee Break

10:20–11:20AM: Additional preparation for presentations
- Focus on estimation
- Run-through before presenting

11:20AM–12:30PM: Design Presentations (two rooms, one French and one English)
- Each participant will have 15 minutes total to present their project and and receive audience feedback
- Address key components in Research Design Form, using presentation format discussed on Thursday

12:30–1:30PM: Lunch + Coffee

Afternoon: Design Presentations continued, Other Topics

1:30–3:50PM: Design Presentations, continued (two rooms)

3:50-5:00PM: Wrap Up, Feedback, Discussion of Other Topics, and Certificate Presentation
- Possible topics include: threats to inference, partnerships, measurement strategies, workflow, research funding
- How will we all continue to communicate and support each other after today?
- Evaluations

EGAP Learning Days Agenda

Workshop Participants:

- Adou Koffi Maxime Abo - CERAP
- Aja Fatou Senghore - University of The Gambia (UTG)
- Aminata Ouedraogo - Thomas Sankara University
- Arthur Ouattara - Millennium Challenge Account
- Elvire Bomo Krou - CERAP
- Etse Yawo Dzakpa - Cheickh Anta Diop University of Dakar
- Fatou Badjie - University of The Gambia
- Gbensuglo Alidu Bukari - University for Development Studies
- Gefry Alapini - African School of Economics
- Gilchrist Gnoumou - World Bank-funded Health Projects Coordination Unit in Ivory Coast
- Gorata Bagopi - Public Procurement and Asset Disposal Board
- Habibou Tapsoba - University of Thomas Sankara
- Henri Zoungrana - Université Félix Houphouët-Boigny
- Irene Gachungi - Busara Center for Behavioral Science
- John Nathaniel Boateng - Research Department Parliament of Ghana
- Jonas Cyrille Djonde - Ministere de la Communication, des Medias et de la Francophonie
- Kalé Julienne Millogo - Université Félix Houphouët-Boigny
- Louis Kouamé Caningan - Ministry of National Education and Literacy
- Mahamadi Gaba - Université Cheick Anta Diop de Dakar
- Mame Mor Anta Syll - Université Gaston Berger
- Obianuju Nnadozie - University of Benin, Nigeria
- Oluwasola Emmanuel Omoju - National Institute for Legislative and Democratic Studies
- Salma Emmanuel - University of Dar es Salaam
- Yao Kekeli Jean Amegble - Boston College