

IMMERSE Pre-Training Day 2

May 24, 2023



UC SANTA BARBARA

Housekeeping

- If you haven't done so already, please respond to Day 1 prompt about your research questions
- Ongoing office hours-- feel free go for any data related support

Overview

PART 1: Introduction to Mplus

- Run basic descriptives in Mplus

PART 2: Introduction to `MplusAutomation` in RStudio

- Run identical analysis using `MplusAutomation`

PART 3: Data Cleaning & Screening

- Missing values
- Recoding variables to factors
- Normality and distributions

ICE BREAKER

Find one thing you have in common with in your breakout room group.

Ice Breaker Idea #1

Ask a general question and have each person share their answer:

- 1) What is the best way to eat potatoes?
- 2) What is something you love that other people typically hate?
- 3) What is a totally boring everyday fact about you?

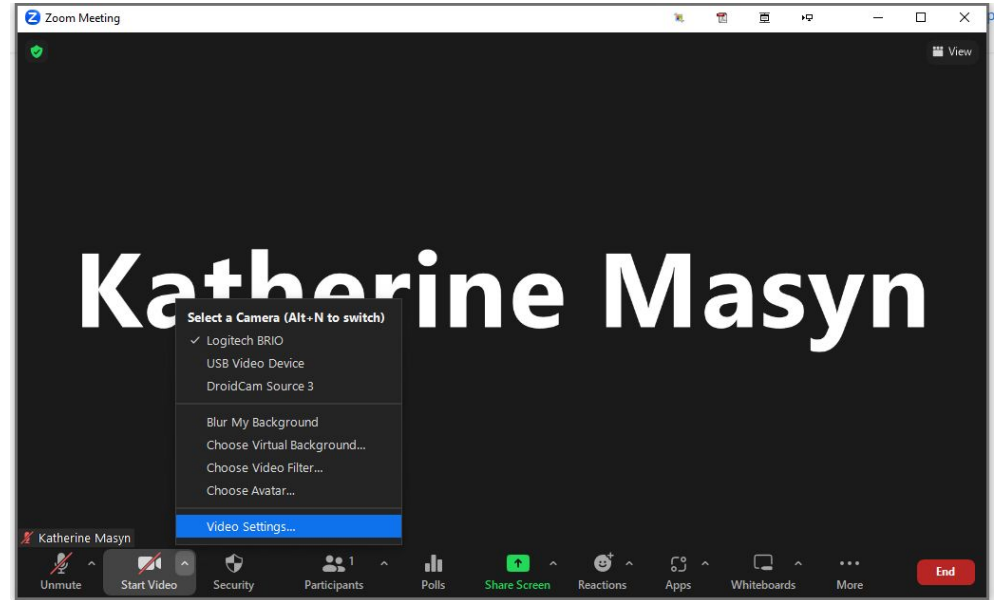
Note: Usually having one question for everyone to answer is plenty.

Ice Breaker Idea #3

Zoom version of Never Have I Ever

Zoom settings:

- 1) Click on ^ next to video camera icon and selection "Video Settings" from the menu.



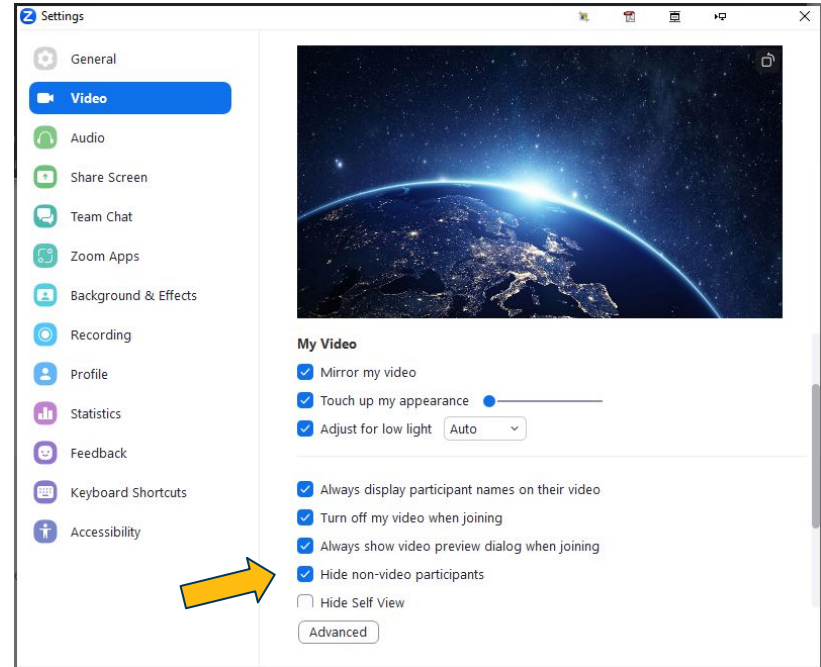
Ice Breaker Idea #3

Zoom version of Never Have I Ever

Zoom settings:

- 2) Under “Video” checking the box next to “Hide non-video participants”

With this option, whenever someone “stops” their camera, their zoom box will disappear completely and reappear when they “start” it.



Ice Breaker Idea #3

Zoom version of Never Have I Ever

Start your video if you **have** done this.

Never have I ever...

- 1) Sang karoake
- 2) Been on TV
- 3) Gotten a tattoo
- 4) Gone skydiving
- 5) Gotten on the wrong train/bus
- 6) Gone camping
- 7) Run a marathon
- 8) Gone rock climbing
- 9) Traveled solo to a foreign country
- 10) Had an online post go viral
- 11) Etc.

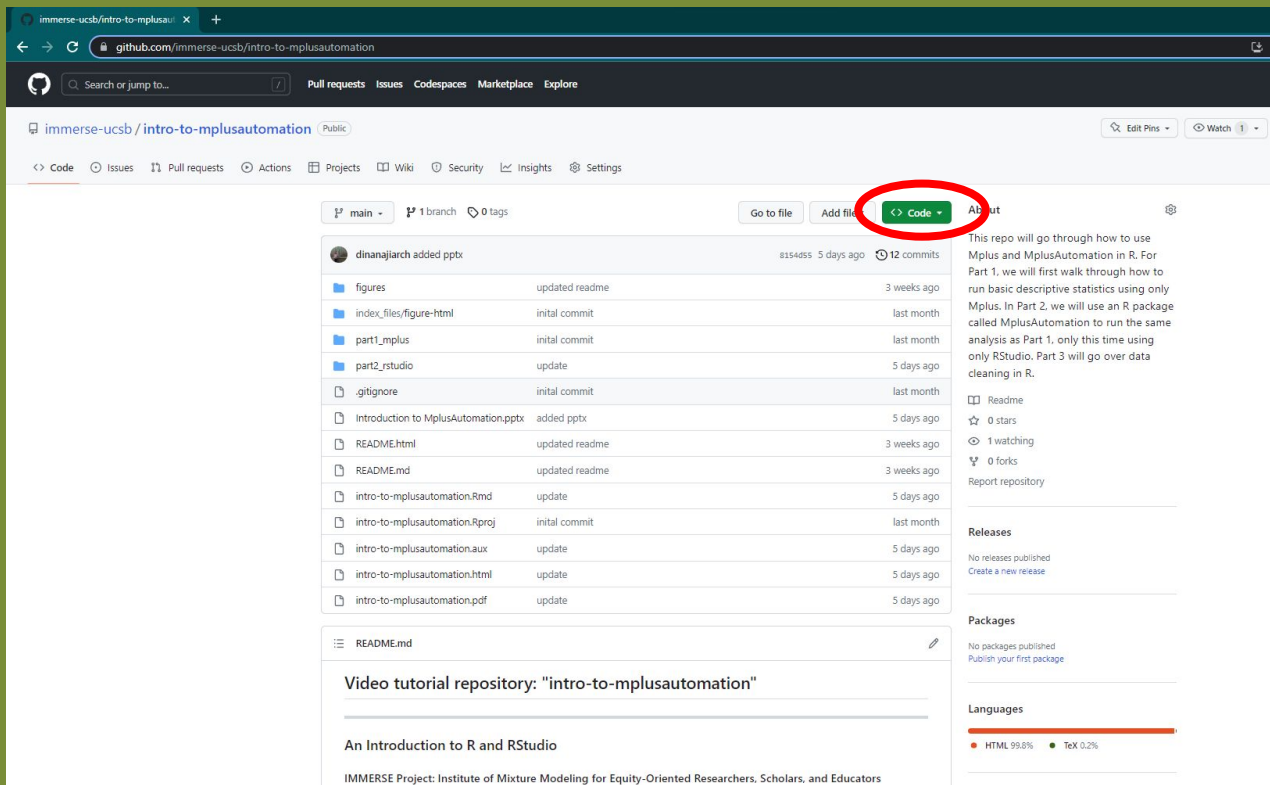
Ice Breaker Idea #4

Same settings as #3 but unmute/start your video if the statement is true for you.

- 1) I like to go hiking.
- 2) I have more than two pets.
- 3) I can play an instrument.
- 4) I am fluent in at least two languages.
- 5) I am vegetarian or vegan.
- 6) I like country music.
- 7) I am left-handed.
- 8) I have lived outside the U.S.
- 9) I have an instagram account.
- 10) I have never seen a star wars film.
- 11) Etc.

PART 1: Introduction to Mplus

Preparation: Download Github Repository



1. Go to the [repository](#)
2. Click “Code”
3. Click “Download Zip”
4. Extract the folder to your desktop (or a dedicated IMMERSE folder)

BREAK (5 minutes)

PART 2: Introduction to `MplusAutomation` in RStudio

WHAT is MplusAutomation & WHY should we use it?

WHAT?

- MplusAutomation is an R package
- It “wraps around” the Mplus program
- Requires both R & Mplus software
- Requires learning some basics of 2 programming languages
- Car metaphor: R/Rstudio is the steering wheel or dashboard & Mplus is the engine

WHY?

- MplusAutomation can provide clearly organized work procedures in which every research decision can be documented in a single place
- Increase reproducibility, organization, efficiency, and transparency

HOW?

- The interface for MplusAutomation is entirely within R-Studio. You do not need to open Mplus
- The code presented will be very repetitive by design

PART 3: Data Cleaning & Screening

Learning Outcomes

1. Using Mplus software, fellows will learn the basic skeleton of an Mplus input (.inp) syntax, run basic descriptive statistics, and evaluate output (.out)
2. Using the MplusAutomation package, fellows will be able to run descriptive statistics in R.
3. This workshop will cover the creation of R-projects and R markdowns and discuss the benefits of organization of the R workflow.
4. Fellows will have the opportunity to learn how to enhance and customize their R markdowns by applying themes to their documents

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All pre-training information is housed below. For some pre-training days, there are things to do ahead of time.

<https://immerse-ucsb.github.io/pre-training>

Day 3 Preparation:

- Work through the [Intro to R and R Studio](#) tutorial if not already done, including installing R and R Studio.
- Read [“Why don’t we share data and code? Perceived barriers and benefits to public archiving practices” \(Gomes et al. 2022\)](#) and reflect on your coding and sharing practices and challenges, in preparation for a brief discussion in the synchronous session.

Asynchronous Activity 1: Complete Part 3 of “Introduction to MplusAutomation”: Descriptive Statistics

Asynchronous Activity 2: How to make your R Markdown Pretty!

Your quick, anonymous feedback is appreciated.
[Here is a link](#)



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