

MITx: 14.310x Data Analysis for Social Scientists

Heli



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Randomized Controlled Trials - Quiz

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Question 1

1/1 point (graded)

Which if the following correctly describes clustered randomization?

- a. When individuals are placed into clusters based on a set of characteristics, and then randomly
 assigned to either treatment or control from within those clusters
- ullet b. When randomization is done in "clusters," for example, when entire classrooms or villages are assigned to either treatment or control as a group \checkmark
- c. When groups are assigned to either treatment or control in clusters over time as the experiment progresses
- d. When individuals are brought into the sample in clusters and then randomly assigned to treatment or control.

Explanation

- Module 5: Moments of a Random Variable,
 Applications to Auctions,
 Intro to Regression
- Module 6: Special
 Distributions, the
 Sample Mean, the
 Central Limit Theorem,
 and Estimation
- Module 7: Assessing and Deriving Estimators -Confidence Intervals, and Hypothesis Testing
- Module 8: Causality,
 Analyzing Randomized
 Experiments, &
 Nonparametric
 Regression

Causality

due Nov 21, 2016 05:00 IST

<u>Analyzing Randomized</u> <u>Experiments</u>

due Nov 21, 2016 05:00 IST

Clustered randomization refers to the case where groups (classrooms, villages, households, etc.) are all assigned to either treatment or control as a group or cluster. This is very common in cases where the treatment doesn't make sense to assign at the individual level. For example, suppose the treatment is to receive an extra teacher in a classroom to provide extra help for students. It would not make sense to assign individual students to either treatment or control, instead, whole classrooms would need to be assigned to either group. (Note that A describes stratification, but we refer to the groups of people that are defined based on certain characteristics as cells, blocks, or strata, instead of clusters.)

Submit

You have used 1 of 2 attempts

✓ Correct (1/1 point)

Question 2

1/1 point (graded)

True or False: Stratification can be a useful tool to ensure that treatment and control groups are balanced across key variables.

a. True

b. False

Explanation

3/2016	Randomized Controlled Trials - Quiz Causality 14.310x Courseware edx
Use of Randomization and Nonparametric Regression due Nov 21, 2016 05:00 IST Module 8: Homework due Nov 14, 2016 05:00 IST	True. Stratification is a useful way to ensure that treatment and control groups are well-balanced according to key variables that we observe at baseline. Suppose that you have a group of 100 households where 80 are male-headed households and 20 are female-headed households. You want to measure the impact of a microfinance program where loans are given to the head of the household, and suspect that it may be relevant whether the household is headed by a male or female. In order to ensure that the number of female-headed households in treatment and control is equal (i.e., the
 Module 9: Single and Multivariate Linear Models 	treatment and control groups are well-balanced along gender of household head) you may want to use stratified randomization.
• Exit Survey	Submit You have used 1 of 1 attempt
	✓ Correct (1/1 point)
	Discussion Topic: Module 8 / Randomized Controlled Trials - Quiz Show Discussion

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