

MITx: 14.310x Data Analysis for Social Scientists

Help



#### **Bookmarks**

- Module 1: The Basics of R and Introduction to the Course
- Entrance Survey
- Module 2:

   Fundamentals of
   Probability, Random

   Variables, Distributions, and Joint Distributions
- Module 3: Gathering and Collecting Data,
   Ethics, and Kernel Density Estimates
- Module 4: Joint, Marginal, and Conditional Distributions &

Module 12: Endogeneity, Instrumental Variables, and Experimental Design > Experimental Design > Sub-treatments and Sample Size - Quiz

## Sub-treatments and Sample Size - Quiz

☐ Bookmark this page

#### **Question 1**

0/1 point (graded)

What should your sample size ideally be when you have many sub-treatments? (Select all that apply)

- a. Sample size is irrelevant
- b. Large enough sample size to test treatment vs. control
- c. Large enough sample size to test the effect of each sub-treatment separately with respect to the control
- d. Large enough sample size to test interactions



#### **Explanation**

One needs more power to test the sub-treatments than one would need to simply do a treatment vs. control comparison, so ensuring that your sample size is large enough to test each separately compared to the control. Ideally, you can also power the experiment to compare all treatment groups

<u>Functions of Random</u> Variable

- 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
- Module 9: Single and Multivariate Linear

to each other (interactions). Submit You have used 2 of 2 attempts **★** Incorrect (0/1 point) Question 2 1/1 point (graded) In the Indonesia rice example, there is enough power to: (Select all that apply) a. Test treatment vs. control ■ b. Test the effect of each sub-treatment c. Test interactions d. Test some interactions.

#### **Explanation**

Professor Duflo mentioned they have enough power to test the effect of each sub-treatment. Since this requires more power than testing treatment vs. control, they will also have enough power to test treatment vs. control. Testing interactions requires more power and the experiment was not

#### **Models**

- Module 10: Practical Issues in Running Regressions, and Omitted Variable Bias
- Module 11: Intro to
   Machine Learning and
   Data Visualization
- ▼ Module 12:
   Endogeneity,
   Instrumental
   Variables, and
   Experimental Design

# **Endogeneity and Instrumental Variables**

Finger Exercises due Dec 14, 2016 05:00 IST

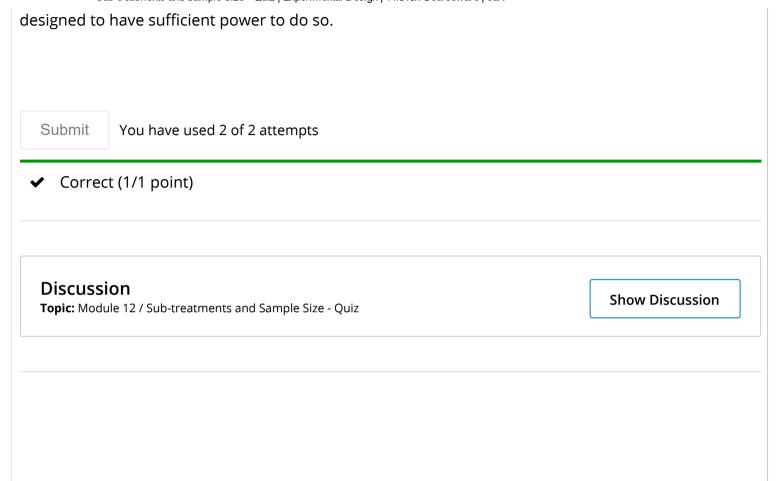
#### **Experimental Design**

Finger Exercises due Dec 14, 2016 05:00 IST

### Module 12: Homework

<u>Homework due Dec 12, 2016</u> 05:00 IST

Exit Survey



© All Rights Reserved



© 2016 edX Inc. All rights reserved except where noted. EdX, Open edX and the edX and Open EdX logos are registered trademarks or trademarks of edX Inc.

















