Section 1.6 IRA Guide

Introduction

Screen 1: List of Objectives

Screen 2: Watch the short video which provides a review of the language used in observational studies.

Objective 1: Describe the Characteristics of an Experiment

Screen 1: Watch the 5-minute video that describes the characteristics of an experiment. (You might prefer to try reading through my pointers for Section 1.6 and see if that is all you need.)

Screen 2: Example 1 goes over the characteristics of an experiment. This example does have a By Hand video solution which might be easier for you to watch.

Screen 3: This problem is similar to Example 1 on the previous screen, covering the characteristics of an experiment.

Objective 2: Explain the Steps in Designing an Experiment

Screen 1: Click through the 6 steps in designing an experiment. These steps might be useful to write down – perhaps in the guided notebook – to use in later problems.

Screen 2: Click through the 6 steps as they relate to Example 1 from Objective 1.

Screen 3: This problem consists of 2 true/false questions based on the steps in designing experiments (controlling factors and randomization). If you decide the statement is false you will have to choose the reason why it is false.
This exercise is set to give you only one attempt, so be sure you understand the concepts in this objective before trying them.

Objective 3: Explain the Completely Randomized Design

Screen 1: Definition of a completely randomized design.

Screen 2: Example 2 goes through the process of setting up a completely randomized design. I'd suggest watching the By Hand video solution.

Screen 3: The figure shows the experimental design of Example 2 on the previous screen.

Screen 4: This exercise will call on your understanding of the definitions associated with the completely randomized design.

Objective 4: Explain the Matched-Pairs Design

Screen 1: Definition of a matched-pairs design. This design will be very important in Chapter 11.

Screen 2: Example 3 walks through how to design a matched-pairs experiment. I'd recommend watching the By Hand video solution.

Screen 3: This exercise will check your understanding of the matched-pairs design.

Screen 4: End of Section