

Section 1.2 IRA Guide

Introduction

Screen 1: List of Objectives

Objective 1: Distinguish between an Observational Study and a Designed Experiment

Screen 1: Watch the video that explains the key differences between an observational study and a designed experiment. You might want to try reading through my pointers for Section 1.2 as well.

Screen 2: In this problem you will need to determine whether the given study is an observational study and why.

Screen 3: This somewhat lengthy video (8 minutes) discusses scenarios where either a designed experiment or an observational study is better.

Screen 4: This question is based on the video in screen 3, and you will only get one chance at this problem so be sure you completely understand prior to trying this problem.

Screen 5: Give a light read of this page which explains when observational studies should be used despite the fact that we cannot claim causation.

Screen 6: Explanation and background of confounding variables.

Screen 7: Explanation of the difference between lurking variables and confounding variables. This is an important concept.

Objective 2: Explain the Various Types of Observational Studies

Screen 1: This 10-minute video discusses the characteristics of cross-sectional studies, case-control studies, and cohort studies. You might want to fast forward to the 5 minute mark to see the examples.

Screen 2: Concluding remarks about observational studies and designed experiments.

Screen 3: For this problem you should understand the differences between observational studies and designed experiments, as well as the types of observational studies on screen 1.

Screen 4: Give a light read to this material about existing data and census data.

Screen 5: Lightly read about the definition of a census.

Screen 6: End of Section