

## CHAPTER 7

### Experiments: What Causes What?

#### **Learning Objectives**

1. Explain the logic of experimentation with respect to how experiments effectively meet the criteria for establishing causality.
2. Describe variations in experimental design related to the timing and measurement of the dependent variable as well as the number of independent variables manipulated.
3. Describe variations in experimental context by distinguishing among laboratory, field, and survey-based experiments.
4. Describe the steps in the process of planning and conducting an experiment and apply them to a research topic.
5. Evaluate experiments as a method of data collection, identifying their strengths and weaknesses.