LEARNING CHECK

1. Explain why a two-way ANOVA is called "two-way."

   A: Because it is analyzing the effects of two independent variables (factors).

2. What are the independent variables in Troisi and Gabriel's (2011) experiment?

   A: Soup consumption and comfort food status of soup

3. What are the conditions that were created from the manipulation of these independent variables?

   A: There are four conditions created by manipulating these two independent variables. As displayed in Figure 11.2, one group ate soup and considered soup to be a comfort food; another group ate soup but did not consider soup to be a comfort food; a third group did not eat soup but did consider soup to be a comfort food; finally, one group did not eat soup nor did they consider soup to be a comfort food.

4. Why might the independent variable of "comfort food status of soup" not be considered a true independent variable (*HINT*: Think about random assignment)?

   A: Participants were not randomly assigned to the levels of this independent variable. Much like people cannot be randomly assigned to be male or female, people cannot be randomly assigned to find a food to be a type of comfort food or not. Returning to our original example to open this chapter, you might not find pizza to be a comfort food, but I do. You cannot be, practically speaking, randomly assigned to find pizza to be a comfort food, and I cannot be randomly assigned to not find pizza to be a comfort food.

   "Comfort food status of soup" is a quasi-independent variable. We discussed quasi-independent variables in Chapter 1. This does not in any way affect how we use our statistical tools.

5. What is the dependent variable in Troisi and Gabriel's (2011) experiment?

   A: Relationship-related word fragments that people completed as relationship words.

6. How was the dependent variable operationalized?

   A: There were three word fragments that could have been completed as relationship words. The number of such word fragments that participants completed (minimum of 0, maximum of 3) was how the dependent variable was operationalized.