In these activities you will compare data collected from different populations and analyze the advantages and disadvantages of using different graphical representations. After completing the activities, discuss and/or present your findings to the rest of the class.

Activity 1 [Page 1.3]

1. Clear the data on page 1.3. Add the **Region> North America> All**, and then choose **Attribute> Education**. The plot shows the literacy rate for the countries in North America. The literacy rate is the percent of the population over the age of 15 that can read and write. Add the region **South America> All**.

   a. How do the literacy rate for the countries in the two regions compare? (Use different graphs and summary statistics to support your thinking.)

   b. Add **Eastern Europe> All** to the plot. How do the literacy rates for countries in Eastern Europe compare to those for countries in North and South America.

   c. Make a conjecture about the literacy rate for countries in Western Europe. Then replace South America with Western Europe and check your conjecture.

Activity 2 [Page 1.7]

1. Decide whether each statement is sometimes true, always true or never true. Give a reason for your answer.

    a. Bar graphs are an efficient way to compare a characteristic across countries in a region.

    b. The horizontal axis in a bar graph can be used to illustrate the interquartile range.

    c. A bar graph shows how many categories are being investigated.

    d. Bar graphs are good ways to display the most frequent occurrence of a particular category.

2. What are advantages and disadvantages of dot plots, box plots, histograms and bar graphs in comparing the countries within one region to the countries within another region with respect to a certain characteristic? Explain why you made your choice.