INSTRUCT TEACHING GUIDE
4. UNDERSTANDING DATA

If students are learning about working with data, refer to:

- Using Quantitative Data
- Evaluating Statistics

DISCUSSION TOPIC

Evaluating Quantitative Data

Use this discussion to introduce students to the process of evaluating data. Begin by asking students why it is important to use accurate sources of data. Next, have students discuss the factors that make a source credible. This discussion can introduce the evaluation criteria used to assess quantitative data: currency, relevance, authority, objectivity, and accuracy. Your students should be able to discuss the meaning of each and provide an example of sources for each criterion.

ACTIVITIES

Evaluating Quantitative Data

Use this activity to help students practice evaluating sources of quantitative data. You will need several examples of visualization in a variety of formats. For each visualization, ask students to describe the data using the following prompts:

- What is the topic of this visualization?
- What is the larger context of the visualization?
- What factors are being compared?
- In what situation would you use this visualization?
- How was the source created? Who is the author?
- Is this a credible source? Why or why not?
- What additional information would you need to evaluate the source?

Students should be able to evaluate each visualization according to the criteria: currency, accuracy, authority, relevance, and objectivity.

Using Quantitative Data in Research

This activity will help students incorporate quantitative data in their research and evaluate the available sources for currency, accuracy, authority, relevance, and objectivity. Begin with a scenario based on a publicly accessible data source (international organizations such as the World Bank are a good place to start). Ask students to review a data set and come up with a unique question to answer using their data interpretation skills. Either individually or in pairs, students will analyze the data to answer their research question. Students should be able to:

- Identify a unique research question based on the data set.
- Analyze the data set(s) for accuracy against any accompanying text.
- Seek out other data sets or text to supplement their research or complement their findings.
- Discuss the credibility of all of their data sources (specifically the source's currency, accuracy, authority, relevance, and objectivity).
- Present their findings using evidence derived from the data set(s).