

Spatial and Cartographic Thinking & Communication
Ulla Bunz, Rutgers University

Introductory exercise

Point you're trying to make: There isn't always one correct way to classify and display data, but the categorization you choose has a profound impact on how your graphic will be interpreted.

Time required: about 12 minutes

Preparation: Copy page 2 onto a transparency; organize to have projector in classroom

What to do:

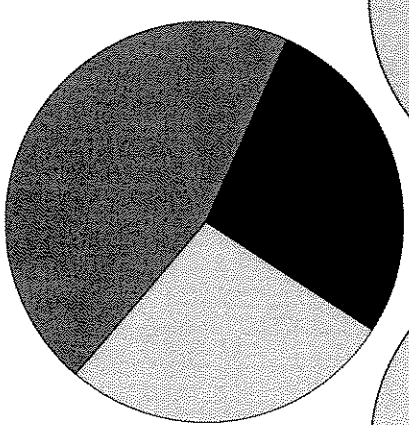
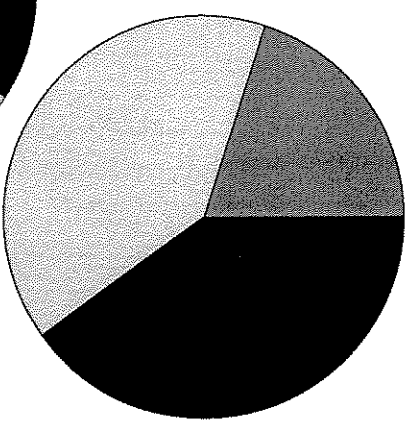
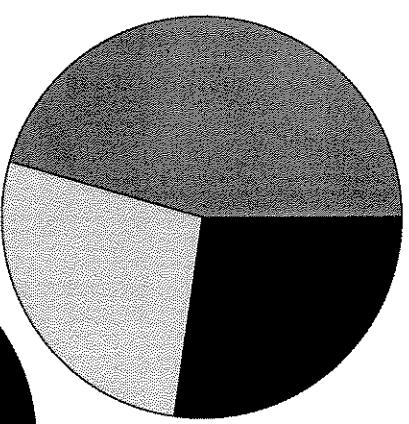
- Display left column of numbers on transparency, covering up the remainder
- Without explanation or detailed instruction, ask students to get in small groups and put numbers into categories (do not tell them how many categories or what the number represent)
- After a couple of minutes, ask students and write onto blackboard
 - o How many categories they made
 - o How many numbers they put in each category
 - o Why they made these decisions
- Ask class which of the solutions is the correct one and why; allow them to answer/argue, then explain main point above
- Show second column of numbers to explain how organizing data can help
- Show three graphs to display visually how different categorization changes graphical outcome; explain how any cartographic display of data follows the same process of categorization, generalization, and interpretation as this simple example, and that maps are communication tools

13,659
 17,378
 13,848
 16,282
 7,679
 4,726
 7,715
 9,028
 13,966
 10,450
 10,869

4,726
 7,679
 7,715
 9,028
 10,450
 10,869
 13,659
 13,848
 13,966
 16,282
 17,378

■ 4,501-8,000
 ■ 8,001-13,500
 ■ 13,501-17,500

■ 4,000-10,000
 ■ 10,001-15,000
 ■ 15,001-19,000



■ 0-5,000
 ■ 5,001-10,000
 ■ 10,001-15,000
 ■ 15,001-20,000