Literacy Limbo: Graphing Literacy Rates

Students will compare the literacy rates of Asian countries and draw some conclusions based on the differences.

Author
Heather S. Terlecki

Grade Level
6-8

Duration
1 class period

National Geography Standards
ELEMENT ONE: THE WORLD IN SPATIAL TERMS
1. How to use maps and other geographic representations, tools, and technologies to acquire, process, and report information from a spatial perspective.

Arizona Geography Standards
CONCEPT 1 World in Spatial Terms
GRADE 6, 7, and 8
PO 1 Construct maps, charts and graphs to display geographic information.
PO 3 Interpret maps, charts and geographic databases using geographic information.

CONCEPT 4 Human Systems
GRADE 6
PO 5 Identify cultural norms that influence different social, political and economic activities of men and women.
GRADE 7
PO 9 Identify cultural aspects (e.g., literacy rates, occupations, property rights) based on social and political factors.
GRADE 8
PO 6 Describe the aspects of culture related to beliefs and understandings that influence the economic, social and political activities of men and women.

Arizona Math Standards
STRAND 2 Data Analysis, Probability, and Discrete Math
CONCEPT 1 Data Analysis
GRADE 6
PO 2 Construct a histogram, line graph, scatter plot, or stem-and-leaf plot with appropriate labels and title from organized data
PO 6 Identify a trend
PO 7 Compare trends in data related to the same investigations
GRADE 7
PO 7 Interpret a trend from displayed data
PO 8 Compare trends in data related to the same investigations
PO 9 Solve contextual problems using histograms, line graphs of continuous data, double bar graphs, and stem-and-leaf plots
GRADE 8
PO 7 Formulate reasonable predictions based on a given set of data
PO 8 Compare trends in data related to the same investigations

Overview
Based on student-created graphs, students will infer that men’s literacy rates are higher in most of the countries on the graph. Students will also think critically about the effects the literacy rates have on the occupations of men and women in the region. They will complete bar graphs and line graphs in this lesson.

Purpose
Students will place information on various graphs. They will interpret the data that is provided and think critically about the disparities shown in the data. Students will use their knowledge of the importance of literacy to
**Literacy Limbo: Graphing Literacy Rates**

make inferences regarding the lives of the people depicted in the graph.

**Materials**

- Literacy Limbo Worksheet
- Literacy Limbo Worksheet Answer Key
- Asia map
- Colored pencils
- Atlas
- Rulers
- Graph paper (optional)

**Objectives**

The student will be able to:

1. Place data regarding literacy rates on graphs and interpret the data.

2. Make inferences about the lives of men and women in the cultures being graphed and how the differences in the graphs can relate to differences in their lives.

**Procedures**

*Students should have experience with graphing and with different types of graphs including stem-and-leaf.*

**SESSION ONE**

1. Introduce the map of Asia to the students and ask them to name some countries that they know in Asia. Put a list of the countries included in this exercise up on the board.

2. Ask students to use an atlas to find and label the countries listed on their map of Asia.

3. Briefly review the difference between a line graph and a bar graph. Explain to students that the type of graph you would draw depends upon the type of data you have available. Bar graphs are used when you are comparing categorical data. This is data that consists of names, labels, or other non-numerical values, types of countries, gender, age, etc. Line graphs are used when you are comparing numerical data that change over time.

4. Pass out Literacy Limbo Worksheet. Review the graph with the students and ask students what they notice just from looking at the graph.

5. Ask students which country they think has the largest differences between men and women’s literacy rates. Ask for ideas on how to actually find the country that has the largest difference between men and women’s literacy rates. After a brief discussion explain to subtract the men and women’s percentages to find the differences. For example: 99% - 97% = a 2% difference.

6. Go over the remaining questions with the students and review how to create the different graphs to ensure that they understand what they are to do. Highlight to them that they will need to create a double bar graph for number 5 and review what the term double bar graph means.

**Assessment**

Geography Assessment: Questions 7, 8, 9, 10, and 11 are all worth 5 points each or 25 points total. Mastery will be considered 20 points out of 25. Points can also be given for map work.

Math Assessment: Questions 1, 2, 3, 4, 5, 6, and 12 measure math skills or concepts. Each question can be scored with 5 points or 35 points total. Mastery will be considered 25 points out of 30.

**Extensions**

Students can research literacy rates in different parts of the world and compare the men and women’s literacy rates in those countries.
Literacy Limbo: Graphing Literacy Rates

Students can research a country and compare the lives of women and men in that country to their own country.

Students could research literacy rates and what effect they have on a country’s economy and way of life.

Sources
United Nations Department of Economic and Social Affairs
http://millenniumindicators.un.org