

Student Performance Q&A: 2011 AP[®] Human Geography Free-Response Questions

The following comments on the 2011 free-response questions for AP[®] Human Geography were written by the Chief Reader, David Lanegran of Macalester College in St. Paul, Minnesota. They give an overview of each free-response question and of how students performed on the question, including typical student errors. General comments regarding the skills and content that students frequently have the most problems with are included. Some suggestions for improving student performance in these areas are also provided. Teachers are encouraged to attend a College Board workshop to learn strategies for improving student performance in specific areas.

Question 1

What was the intent of this question?

This question was intended to determine students' understanding of the model of urban hierarchy and its application to an actual system of cities. Rank-size rule and primacy are fundamental to the section of the course on cities and urban land use. The question asked students to provide definitions for rank-size rule and primate city and to determine which one best described Mexico's system of cities. They were then asked to provide a discussion of both the positive and the negative impacts of primate cities on a nation's economy.

How well did students perform on this question?

The mean score was 1.87 out of a possible 7 points.

What were common student errors or omissions?

There were several common errors and omissions. Many students did not know the definitions for rank-size rule and primate city and could not identify which concept applied to Mexico's urban geography. In addition, many students could not relate the nature of a nation's urban hierarchy to economic conditions in the country. There was a strong pattern of students writing about the internal structure and economic problems of primate cities rather than the impact of a primate city on the nation's economy.

Based on your experience of student responses at the AP Reading, what message would you like to send to teachers that might help them to improve the performance of their students on the exam?

- Students seem to have a very incomplete mastery of the concepts of the hierarchy of urban places. The search for the understanding of the processes that locate cities and affect growth in systems of cities is one of the most fundamental components of urban

geography. Although this concept may be new or unfamiliar to many students, it must be thoroughly explicated, and students should practice using all the concepts of the urban hierarchy, such as central place theory, rank-size rule and other concepts, to explain the world around them.

- There is some evidence that indicates teachers schedule the urban geography unit for the end of the AP Human Geography course. Because of conflicts for time, the last unit is not covered as thoroughly as the others. When time is an issue, teachers must focus students' attention on the fundamental models of urban geography and help students practice applying the various models and concepts to real-world situations.

Question 2

What was the intent of this question?

This question was structured in a way that required students to present both sides of the discourse on the future of world population growth and food supply. Students were asked to frame their discussion around the precepts of the Malthusian essay on population growth. They were given a summary of the Malthusian argument and did not need to base their essays on recall. The question did not force students to choose sides in this debate but rather asked them to present evidence that they understood both views about the future relationship between population growth and food supply.

How well did students perform on this question?

The mean score was 3.61 out of a possible 8 points.

What were common student errors or omissions?

Most students did not fully understand both sides of the debate. Students lost points because they could not present evidence that world population growth might outstrip agricultural production.

Based on your experience of student responses at the AP Reading, what message would you like to send to teachers that might help them to improve the performance of their students on the exam?

- Make it a point to help students see the connections between concepts and models and real-world situations. This question asked students to evaluate both sides of the discussion over the application of the Malthusian concepts of population growth and food production to the prediction of the quality of human life on Earth. This is one of the most fundamental questions in population geography. Although many students had some knowledge of the position of Malthus, they were not able to discuss both sides of the debate on the relevance of the concepts. This is an issue because students in a college-level course are expected to take positions in a variety of important debates about the future of human population on Earth.
- Though not every topic in geography is controversial, teachers should develop lessons that ask students to take a position or solve a problem using the fundamental concepts.

Question 3

What was the intent of this question?

This question required students to identify locational factors that pertained to the expansion of the automobile industry in the United States. They were then asked to explain how the factors they identified worked in combination to create a pattern of investment in new automobile assembly plants. The students were expected to use the Weber model of industrial location to frame their response to this question.

How well did students perform on this question?

The mean score was 2.41 out of a possible 6 points.

What were common student errors or omissions?

Students were generally able to identify the factors of location but had much more trouble applying the factors in an explanation of the pattern they observed on the maps. Students did not grasp the basics of the Weber model and therefore were unable to develop plausible explanations for the patterns shown on the maps. Many students misinterpreted the maps or did not read them carefully. A large number of students mistakenly believed foreign-owned automobile plants employed migrant or foreign labor.

Based on your experience of student responses at the AP Reading, what message would you like to send to teachers that might help them to improve the performance of their students on the exam?

- Students need more practice reading maps. This does not mean learning place locations, but being able to critically interpret the information presented. Students who were able to read and understand the maps generally got the highest scores. Conversely, students who made mistakes reading the maps did not earn as many points. Research on spatial reasoning indicates that students can make great strides in their ability to read maps if they are given guided practice. In this question students really needed to read the key. A surprisingly large number of students apparently did not read or understand the key.
- Stress the fact that models are generalizations intended to be used to predict or explain unfamiliar patterns. They are not just to be memorized. Some questions on the exam ask students to apply concepts and models to places that may not be familiar to all students to see how well they have mastered the concepts. Students clearly need to practice using the basic concepts and models. Build time into classes to reinforce students' abilities to make the connections and appreciate how to use fundamental ideas to solve problems or establish a position in a debate.