



## Student Performance Q&A: 2016 AP<sup>®</sup> Human Geography Free-Response Questions

The following comments on the 2016 free-response questions for AP<sup>®</sup> Human Geography were written by the Chief Reader, Don Zeigler, Old Dominion University in Virginia Beach, Va. 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 required students to demonstrate foundational knowledge about the structure of the economy by identifying primary, secondary, and tertiary economic activities (part A), and to explain three changes that occur as a country develops over time. Accomplishment of the second task required integrating knowledge about changes that take place in a country's economic geography (part B1), its population geography (part B2), and its social geography (part B3).

The question was drawn from Part VI (Industrialization and Economic Development) of the AP Human Geography course outline, which requires students to “identify the different economic sectors” (part A); to understand how the primary sector has declined as “the contemporary economic landscape has been transformed by the emergence of service sectors” (part B1); and to “evaluate the role of women in economic development” (parts B2, B3). The question also draws upon essential information, from Part II (Population and Migration), that cites infant mortality rate as a “measure of social and economic development” (part B2).

#### *How well did students perform on this question?*

The mean score on this question was 3.23 out of a possible 7 points, with a standard deviation of 1.78. Part A (1 point) required defining three terms, which most students did correctly. Part B (6 points) required an explanation of reasons behind changes in a country as development takes place; it was in this part that points were missed by students. Points missed in part B were the result of either not providing a second reason for the change or not explaining cause-and-effect relationships behind a change. There were not many 0's or 7's.

### ***What were common student errors or omissions?***

The most common student error was confusing Infant Mortality Rate with Total Fertility Rate, but there were other shortcomings as well: (1) using examples only from developing countries in their explanations, and (2) noting correlations but not explaining causation. In other words, many students did not explain the “how and why” of the question.

### ***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?***

Teachers might have improved student performance on this question by (1) teaching the difference between “identify” (short and definitional) and “explain” (follow a line of causation), and (2) helping students keep track of what the question requires. Some students gave only one reason for each change, apparently forgetting that the question asked for two reasons for each change; other students gave three reasons for each change, rather than two. In the latter case, readers are instructed to score only the first two reasons given. Furthermore, (1) each reason needed to be related to the stem, and (2) each reason needed to be conceptually distinct and not repetitive. Short answers to part B2 like “better medical care,” for instance, did not score points because the response provided no explanation in relation to the concept of Infant Mortality Rate.

## **Question 2**

### ***What was the intent of this question?***

This question required students to synthesize information from two different parts of the course outline and explain and discuss the impact of multiple languages on a country’s cultural and political geography. Part A required students to identify the language that was displayed on the map. Parts B and C required an explanation of how bilingualism, in general, can have a positive or a negative impact on a country. Part D required the application of a concept, the nation-state, to the case of Canada.

This question was drawn from Part III (Cultural Patterns and Processes) of the AP Human Geography course outline, which requires students to “assess the spatial and place dimensions of cultural groups as defined by language” in part A. The course outline notes that “language patterns and distributions can be represented on maps,” so a map of Canada (showing the distribution of French) was included as a stimulus for the question. For students to score well on parts B, C, and D, a firm grasp of Part IV (Political Organization of Space) of the course outline was necessary. In parts B and C students needed to apply “the concepts of centrifugal and centripetal forces at the national scale.” In part D a deep understanding of “the concept of the modern nation-state” was required.

### ***How well did students perform on this question?***

The mean score on this question was 3.13 out of a possible 7 points, with a standard deviation of 1.72. Part A required identifying the language that was displayed on the map (1 point). Parts B and C required an explanation of how bilingualism in general can have a positive or a negative impact on a country (4 points); these parts were not specific to Canada. Part D required the application of a concept, the nation-state, to the case of Canada. Most students scored the identification points (French language). Points were most commonly missed in parts B and C because they offered only a basic explanation (for 1 point) rather than a fully developed explanation (for 2 points). Many answers offered for part D were incorrect.

### ***What were common student errors or omissions?***

The most common student shortcoming was a failure to fully develop an explanation. Many student responses made a simple statement (e.g., bilingualism encourages cultural diversity), but then provided no

supporting evidence, details, or examples. Merely stating key concepts such as “diversity” or “centrifugal/centripetal” did not constitute an explanation. Other student errors or omissions included (1) equating language with ethnicity, and (2) misusing or over-using “lingua franca.” In addition, students lost points because they sometimes did not focus on the country level-scale in parts B and C; many focused on the advantages and disadvantages that accrued to an individual who was bilingual (an example of the importance of understanding “scale” before answering a question). In part D, many students missed points because they did not know much about the nation-state model or because they went back to language as an explanation for why Canada does not fit the nation-state model (even though the stem of the question says “other than language”). Many students incorrectly went to Canada’s large territorial size, its fragmented northern realms, and its status as a federal state as reasons why Canada does not fit the nation-state model; none of those reasons earned any points.

***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?***

Teachers might have improved student performance on this question by (1) informing students that both “explain” and “discuss” means that they must write more than one sentence, (2) reviewing the concept of the nation-state beyond the idea of sovereignty, (3) making connections between and among the different parts of the course, in this case the cross-over between cultural and political geography, (4) incorporating a discussion of major world regions into all units, and (5) having students practice map interpretation. Concepts that students confused in answering part C were centrifugal/centripetal forces (centrifugal was relevant to the question) and push/pull factors (not relevant to the question).

### **Question 3**

***What was the intent of this question?***

This question assessed the degree to which students could use qualitative geographic data, specifically photographs of wet rice and wheat, to structure a comparison between subsistence and commercial agriculture. In part A identification of the two crops shown in the pictures was followed by a discussion on differences in economic geography in part B. Students were required to identify different environmental impacts of subsistence and commercial agriculture (the agricultural types to which wet rice and wheat farming belong) in parts C and D.

This question was drawn from Part V (Agriculture, Food Production, and Rural Land Use) of the AP Human Geography course outline, which requires students to “examine major agricultural production regions of the world, which are characterized as commercial or subsistence operations.” As a foundational learning objective for this question, however, Part I (Geography: Its Nature and Perspectives) acknowledges the necessity of learning to “use landscape analysis to examine the human organization of space.” Photography and visualization were specifically utilized in part A to test whether students had mental images of two classic agricultural landscapes.

***How well did students perform on this question?***

The mean score on this question was 3.85 out of a possible 7 points, with a standard deviation of 1.79. Part A required students to identify crops by looking at the landscapes presented in two photographs (1 point). Almost all students identified rice, fewer identified wheat. To get the point, however, both crops had to be identified correctly. In part B, which was worth a total of 4 points, the vast majority of students received at least 2 points. The most common answers for part B dealt with B1, B2, and B4. Part C (1 point) was the most difficult part of the question, with a rough estimate of only 30 percent of students getting it correct. Part D (1 point) was correctly answered by more students than scored a point in part C, even though both parts C and

D deal with the same concept, human-environment relationships. The most common answers for part D dealt with how air pollution from the machinery or chemical fertilizer runoff harmed the environment.

***What were common student errors or omissions?***

The biggest difficulty was in part B where students had to give both sides of the comparison in order to score any points. In other words, they had to make a point about subsistence agriculture and a corresponding point about commercial agriculture. In part C, many students had the “romantic” notion of subsistence agriculture as pure and healthy with no environmental impacts. In addition, the concepts of desertification and ozone depletion were often discussed incorrectly in part C.

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

Above all, when asked to “discuss” something, students need to offer more than the bare minimum; they need to prove that they understand what they are saying. In addition, teachers should work with students on making complete comparisons or contrasts. If asked to compare two geographical concepts (such as subsistence and commercial agriculture), both concepts must be mentioned in the answer. However, it is not sufficient to say, for instance, that subsistence agriculture is labor intensive but commercial agriculture is not (no points). Nor is it appropriate, for instance, to say that subsistence farms are found in LDCs but commercial farms produce crops for sale (no points). With respect to visual literacy, teachers should work with students to help them associate landscape images with economic, cultural, and political components of the course.