



Student Performance Q&A: 2016 AP[®] Psychology Free-Response Questions

The following comments on the 2016 free-response questions for AP[®] Psychology were written by the Chief Reader, Elizabeth Yost Hammer, Xavier University of Louisiana. 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?

The question required students to apply seven psychological concepts to the context of Ashley driving from New York to California to attend college.

The question consisted of two parts: Part A, which required students to illustrate how the concepts of motor neurons, retinal disparity, heuristic, and procedural memory would each help Ashley on her drive; and Part B, which required students to illustrate how the concepts of circadian rhythms, conditioned response, and inattention blindness contributed to a negative experience on the drive. For each score point, students had to apply the concept to the scenario in a manner that demonstrated mastery of the concept and an ability to distinguish it from related concepts.

How well did students perform on this question?

On Question 1, the mean score was 2.63 (standard deviation 1.58) out of a possible 7 points.

What were common student errors or omissions?

In Part A, students sometimes were not as specific as they needed to be. For example, although point 1 was a commonly scored point, students sometimes did not demonstrate that motor neurons were causing Ashley to move, which in turn allowed the car to transport her. They sometimes would simply say that motor neurons helped her to drive, which could refer to many things other than motor neurons, but including the specification of Ashley's movement eliminates those other factors. On point 2, students regularly noted that retinal disparity facilitates depth perception, but they failed to note that it results from the degree of difference in the images sensed by each retina. On point 4, students frequently failed to note the implicit nature of procedural memory; that is, some seemed to reason that it must be memory for procedures, without advancing past this intuitive but insufficient perspective.

In Part B, students occasionally neglected to specify the negative outcome that resulted from the concept. On point 5, students commonly omitted the specific cyclical biological process. On point 7, students often failed to demonstrate understanding by specifying an object that would have been seen if Ashley had been focused as she drove; they frequently seemed to confuse it with divided attention, a related but distinct concept.

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 should emphasize to students that although many psychological concepts (such as, in this question, procedural memory and inattentional blindness) have names that seem to give an intuitive idea of what the term means, students will need to show that they understand the term on an academic, rather than common-sense, level.

Although the vast majority of students attempted, as instructed, to apply the concept to the scenario presented and did not just give a definition, many of these applications failed to distinguish the concept from other terms or to demonstrate an understanding of the process behind the term. For example, in an application of a heuristic it is important to include some description of the problem being solved and what the specific heuristic is that is being applied.

The key to a quality response is specificity. A student who writes that, “Motor neurons will help Ashley drive the car,” neglects the fact that many other factors and even other neurons help her drive as well. “Retinal disparity is a binocular cue that will help her judge depth” fails to distinguish the concept from convergence.

Question 2

What was the intent of this question?

The question required students to respond to two aspects of a scenario that described Danny’s upcoming geography quiz on countries and capitals.

The question was composed of two parts: Part A required the student to show understanding of learning and cognition, in terms of distributed practice, a mnemonic device, a secondary reinforcer, and the Big Five trait of conscientiousness, by explaining how these concepts might help Danny succeed with this task. Part B required the student to discuss how elements of memory (retroactive interference), motivation (self-fulfilling prophecy), and physiology (sympathetic nervous system) might hinder Danny’s success with this task. For each score point, students were required to demonstrate an understanding of the concept and an ability to apply it to the appropriate context.

How well did students perform on this question?

On Question 2, the mean score was 3.20 (standard deviation 1.66) out of a possible 7 points.

What were common student errors or omissions?

With respect to content knowledge, students had difficulty responding to the point about a secondary reinforcer. Students who missed this point often referred to primary, rather than secondary reinforcers. They sometimes described secondary reinforcers that would be administered for success on the quiz itself, and not for preparing for the quiz. While reinforcers given for a quiz grade is valid in general, this question asked how a secondary reinforcer would help Danny prepare, so the reinforcement must take place for the preparation itself. Students also showed lack of understanding of the concept, inappropriately saying that it referred to help from a second person.

Students also had difficulty responding to the point about the Big Five trait of conscientiousness. Students who missed this point often discussed concepts other than the trait of conscientiousness, such as consciousness, or conscience. They also often missed this point by describing temporary states involving motivation, rather than enduring characteristics of conscientiousness. Students sometimes missed this point by describing other Big Five traits, such as openness. Students also had difficulty responding to the point about retroactive interference. Those who missed this point often described proactive interference instead of retroactive interference.

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?

In general, students must not only understand the definitions of these concepts, but they must be prepared to apply them to the scenario as the question states. Students should learn to pay close attention to the specific points addressed in questions so they can focus their answers appropriately. Teachers would do well to practice free-response writing in terms of application of terminology.