

## Chief Reader Report on Student Responses: 2017 AP<sup>®</sup> Psychology Free-Response Questions

• Number of Students Scored	302,369			
• Number of Readers	546			
• Score Distribution		Exam Score	N	%At
		5	57,744	19.1
		4	75,937	25.1
		3	60,390	20.0
		2	44,203	14.6
		1	64,095	21.2
• Global Mean	3.06			

The following comments on the 2017 free-response questions for AP<sup>®</sup> Psychology were written by the Chief Reader, Rik Seefeldt, Professor of Psychology, University of Wisconsin-River Falls. 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 preparation 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****Max. Points:** 7**Mean Score:** 2.91***What were responses expected to demonstrate in their response to this question?***

This question required students to respond to two parts. Part A required students to show understanding of drive-reduction theory, external cues, dopamine and the reward center, and observational learning, by explaining how these concepts each play a role in eating behavior. Part B required students to respond to three aspects of a study investigating the role of framing on concern for healthy eating. The students must operationally define the study's dependent variable, explain what makes the study experimental, rather than correlational, and identify the most appropriate conclusion of the study.

***How well did the response address the course content related to this question? How well did the responses integrate the skills required on this question?***

The students' responses addressed the course content appropriately. None of the points in the question were beyond student capability, although there was wide individual difference with respect to the adequacy of the responses. For several of the concepts, a significant percentage of responses scored the point. For two of the points, the rate of successful responses was lower because the concepts were difficult. When responses failed to score, it was often due to students' failure to connect a concept to the behavior addressed in the question. At times, students understood the general nature of a concept, but they couldn't apply it to the scenario described in the question.

With respect to the elements of the question related to research methodology, when responses did not score, it was often due to a failure to apply concepts appropriately.

***What common student misconceptions or gaps in knowledge were seen in the responses to this question?***

<i>Common Misconceptions/Knowledge Gaps</i>	<i>Responses that Demonstrate Understanding</i>
<ul style="list-style-type: none"> <li>Gap in the response: Failure to identify the three basic elements of drive reduction theory.</li> </ul>	<ul style="list-style-type: none"> <li>A physiological need (e.g., a departure from homeostasis) stimulates a psychological drive that motivates a person to eat, thus restoring the body's homeostasis.</li> </ul>
<ul style="list-style-type: none"> <li>Gap in the response: Specifying that external cues affect the desire or urge to eat without mentioning actual eating behavior.</li> </ul>	<ul style="list-style-type: none"> <li>A person will perceive a food-related stimulus, such as an advertisement for food, which leads the person to eat.</li> </ul>
<ul style="list-style-type: none"> <li>Gap in the response: Failure to specify that the neurotransmitter dopamine is released when a person eats.</li> <li>Gap in the response: Failure to associate dopamine with the feeling of pleasure.</li> </ul>	<ul style="list-style-type: none"> <li>When people eat a food they like, dopamine is released in the brain, leading to a feeling of pleasure.</li> <li>The release of dopamine leads to a feeling of pleasure, which leads to more eating.</li> </ul>
<ul style="list-style-type: none"> <li>Gap in the response: Failure to state that imitation of modeling leads to learning and a long-term change in behavior, stating only the element of imitation</li> </ul>	<ul style="list-style-type: none"> <li>When a child sees its parents use a spoon to eat, the child imitates the parents and develops the habit of using a spoon.</li> </ul>

<ul style="list-style-type: none"> <li>• Gap in the response: Confusing the independent variable and the dependent variable.</li> <li>• Gap in the response: Failure to indicate the specific measurement that constitutes the operational definition of the dependent variable.</li> </ul>	<ul style="list-style-type: none"> <li>• The dependent variable is the outcome measure of concern about healthy eating as reflected in the score on the rating scale.</li> </ul>
<ul style="list-style-type: none"> <li>• Gap in the response: Failure to specify that random assignment of participants to conditions is crucial to the design of an experiment.</li> <li>• Gap in the response: Failure to mention that the experimenter is responsible for assigning participants to groups.</li> </ul>	<ul style="list-style-type: none"> <li>• The study was an experiment because the researcher randomly assigned participants either to the “obesity is a disease” condition or to the “obesity results from personal choice” condition.</li> </ul>
<ul style="list-style-type: none"> <li>• Gap in the response: Lack of a statement that attitudes of participants were the result of the experimental manipulation.</li> </ul>	<ul style="list-style-type: none"> <li>• If people are exposed to a message that obesity results from personal decisions, they are more likely to see healthy eating as important.</li> <li>• The way the issue of obesity is framed affects a person’s attitude about healthy eating.</li> </ul>

***Based on your experience at the AP<sup>®</sup> Reading with student responses, what advice would you offer to teachers to help them improve the student performance on the exam?***

With respect to the question on research methodology, a schematic diagram that shows the difference in components of experimental and correlational research could be illustrative.

***What resources would you recommend to teachers to better prepare their students for the content and skill(s) required on this question?***

To support students’ understandings of research methodology, you may wish to review the Teaching Statistics and Research Methodology curriculum modules on the AP Psychology Classroom Resources page (<https://apcentral.collegeboard.org/courses/ap-psychology/classroom-resources?course=ap-psychology>).

You may also wish to review the Resources section of the AP Psychology online Teacher Community, which includes resources on numerous psychology topics from AP and your colleagues.

**Question #2****Max. Points:** 7**Mean Score:** 1.98***What were responses expected to demonstrate in their response to this question?***

This question required students to apply a number of psychological constructs to Sachio's successful visit to audition for a music scholarship at a prestigious university. These constructs affected his visit in different ways. The resistance phase of the general adaptation syndrome, basilar membrane, and somatosensory cortex all involve some physiological component of his visit. Social facilitation and the Big Five personality trait of extraversion address the social experiences during the visit. Implicit memory and intrinsic motivation are cognitive and emotional factors within Sachio that contributed to the positive outcomes of the visit. Students were required to apply these constructs to the success of the visit in a way that demonstrated their mastery of each concept and their ability to distinguish one concept from another.

***How well did the response address the course content related to this question? How well did the responses integrate the skills required on this question?***

As always, students did better on some points than others. It appears that points 1 and 4 (resistance phase of the GAS and basilar membrane) were ones with which students overall were less familiar. Although many students had some basic knowledge of the resistance phase, they sometimes failed to incorporate a physiological emphasis; with basilar membrane, however, students who were at all familiar with the term could easily apply it to the importance of hearing in Sachio's audition. Students were generally successful in finding appropriate applications to Sachio's visit if they knew the concepts. Some, however, seemed to be unfamiliar with terms such as somatosensory cortex and social facilitation, so they attempted to intuit what they were, and the rubric was designed to filter out these naïve responses.

***What common student misconceptions or gaps in knowledge were seen in the responses to this question?***

<i>Common Misconceptions/Knowledge Gaps</i>	<i>Responses that Demonstrate Understanding</i>
<ul style="list-style-type: none"> <li>Resistance phase of the GAS reduces stress.</li> </ul>	<ul style="list-style-type: none"> <li>The resistance phase maintains elevated physiological arousal.</li> </ul>
<ul style="list-style-type: none"> <li>Implicit memory is something that is well memorized.</li> </ul>	<ul style="list-style-type: none"> <li>Implicit memory is automatic or effortless memory that, typically, is appropriate here for behaviors such as playing an instrument.</li> </ul>
<ul style="list-style-type: none"> <li>Social facilitation is when other people actively encourage one to do well.</li> </ul>	<ul style="list-style-type: none"> <li>Social facilitation is when the mere presence of others boosts performance, particularly for easy or well-learned tasks.</li> </ul>
<ul style="list-style-type: none"> <li>The basilar membrane is in the brain.</li> </ul>	<ul style="list-style-type: none"> <li>The basilar membrane is in the ear and would facilitate adjustment to the tone of Sachio's saxophone because he can hear errant notes.</li> </ul>
<ul style="list-style-type: none"> <li>The somatosensory cortex governs all senses</li> </ul>	<ul style="list-style-type: none"> <li>The somatosensory cortex governs sensory input through the skin, joints, etc., and so helps produce our sense of touch.</li> </ul>

<ul style="list-style-type: none"> <li>• Intrinsic motivation is an internal drive to achieve a reward.</li> </ul>	<ul style="list-style-type: none"> <li>• Intrinsic motivation drives one to perform for the enjoyment of the activity and not for a reward.</li> </ul>
<ul style="list-style-type: none"> <li>• Extraversion refers to social skills.</li> </ul>	<ul style="list-style-type: none"> <li>• Extraverts are not necessarily more socially skilled, but they are more inclined toward social interaction.</li> </ul>

***Based on your experience at the AP<sup>®</sup> Reading with student responses, what advice would you offer to teachers to help them improve the student performance on the exam?***

This question illustrates the importance of breadth of coverage and of experience with applying concepts to various situations. Students should regularly be asked to respond to questions that ask them to apply specific concepts to a given scenario. While students do not need to provide a separate definition of the concept, the application must clearly convey an understanding of the items in the prompt.

It is not required, but helpful, if students write their responses in the order of the question asked. It is also not necessary for students to provide an introductory or concluding paragraph or statement, and students should devote the time allotted to directly addressing the question.

***What resources would you recommend to teachers to better prepare their students for the content and skill(s) required on this question?***

For resources related to the topics included in this question, you can review the Resources section of the AP Psychology online Teacher Community, which includes resources on numerous psychology topics from AP and your colleagues.