



Chief Reader Report on Student Responses: 2023 AP[®] Psychology Set 2 Free-Response Questions

• Number of Students Scored	321,329		
• Number of Readers	710		
• Score Distribution	Exam Score	N	%At
	5	54,302	16.90
	4	74,529	23.19
	3	62,707	19.51
	2	39,734	12.37
	1	90,057	28.03
• Global Mean	2.89		

The following comments on the 2023 free-response questions for AP[®] Psychology were written by the Chief Reader, Elliott Hammer, Professor of Psychology at 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 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

Task: Apply psychological concepts to a scenario described in the prompt

Topic: Concept Application

Max Score: 7

Mean Score: 2.42

What were the responses to this question expected to demonstrate?

Responses were expected to demonstrate an understanding of the social psychology concepts of spotlight effect and actor-observer bias; the developmental psychology concept of the formal operational stage of cognitive development; the motivation/emotions/personality concepts of self-efficacy and low levels of the Big Five trait of extraversion; and the learning concepts of negative punishment and cognitive map.

Responses were expected to apply the concepts to real-world scenarios. Typically, responses needed to distinguish the listed concepts from those that might be similar in meaning or application. For instance, “self-efficacy” is often confused with “self-esteem,” so the scoring guidelines ensured that Readers could determine whether a student’s response confused the two related but distinct terms.

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

Students varied considerably in how well they addressed the skills and content assessed in this question. Some responses indicated a solid understanding and ability to discuss and apply the concepts in real-world scenarios. Many responses indicated a solid understanding of learning concepts (cognitive map and negative punishment), while others were stronger in demonstrating an understanding of developmental psychology concepts (formal operational stage of cognitive development), social psychology concepts (spotlight effect), and motivation/emotion/personality concepts (low levels of the Big Five trait of extraversion). Some responses reflected strengths or weaknesses across these skill areas.

On the other hand, many responses indicated less mastery of the social psychology concept of actor-observer bias and the motivation/emotion/personality concept of self-efficacy.

Responses that scored highly on the question demonstrated a strong ability to apply most of the concepts and explain human behavior in the real-world situation presented.

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">Many responses described actor-observer bias in terms of the fundamental attribution error rather than the actor-observer bias. Additionally, responses tended to limit their explanations to showing a dispositional attribution to the scenario.	<ul style="list-style-type: none">“Jordan believes she won the debate because she had the time to prepare, but Jordan’s teammates think she won because she is smart.”

<ul style="list-style-type: none"> Many responses failed to distinguish among self-efficacy, self-confidence, self-esteem, self-sufficiency, and efficiency at a task. 	<ul style="list-style-type: none"> “Jordan believes she has the skills necessary to win the debate.”
<ul style="list-style-type: none"> Some responses mistakenly omitted the belief/perception that is required for someone to feel the spotlight effect. Students stated that the spotlight effect focused on just being the center of attention rather than the false perception/belief that everyone is paying attention to or judging you. 	<ul style="list-style-type: none"> “Jordan feels so awkward her first few days at school because she thinks everyone is staring at her, even when they are not.”
<ul style="list-style-type: none"> Some responses mistakenly described Jordan’s low level of extraversion as being impacted by the situation of being new at school rather than describing it as a dispositional trait. 	<ul style="list-style-type: none"> “Because Jordan is not that outgoing, she finds it hard to make friends at her school.”

Based on your experience at the AP[®] Reading with student responses, what advice would you offer teachers to help them improve the student performance on the exam?

- When teaching how psychological concepts apply to specific scenarios and real-world examples, ask students to use the key parts of the definition when applying those parts to different examples. Encourage students to address each part of the definition in their application, ensuring that students link the concepts to the outcomes of the particular scenario in the FRQ.
- Dissuade students from discussing additional concepts in their response beyond the concepts addressed in the FRQ. For example, when discussing the low levels of the Big Five trait of extraversion, students should avoid discussing concepts related to conscientiousness, agreeableness, openness to experience, and neuroticism.
- Students should avoid writing additional examples of concepts unrelated to the specific scenario provided in the FRQ. For example, for negative punishment, students should not discuss removing a child’s phone to decrease aggressive behavior, which is extraneous information not included in the specific scenario provided in the FRQ. The response should address only the information from the specific scenario provided in the FRQ. For example, Jordan stopped helping the coach because her friends stopped sitting with her at lunch.
- Spend time helping students find ways to differentiate between commonly confused concepts. When teaching the social psychology concept of actor-observer bias, clearly discuss how this concept differs from fundamental attribution error. Specifically, focus on the different attributions an actor (self) and observers (others) make when explaining a single behavior completed by the actor. The actor attributes the behavior to situational factors, while the observers attribute the behavior (of the actor) to dispositional factors.
- Please have students format responses into paragraphs to differentiate among the concepts. It is challenging to distinguish between concepts when students write a single paragraph containing all seven concepts rather than writing seven distinct paragraphs that each address a singular concept.

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

Teachers can use sample FRQs in AP Classroom to help teach students how to write responses to the Concept Application FRQs on the AP Exam. Having students write at least one Concept Application FRQ for each unit will help them develop responding skills over time and for terms across the course. AP Daily videos also provide tips to students on how to write FRQ responses and how to differentiate between commonly confused terms.

Question 2

Task: Apply research design concepts to a scenario described in the prompt

Topic: Research Design

Max Score: 7

Mean Score: 2.84

What were the responses to this question expected to demonstrate?

Responses were expected to demonstrate an understanding of the social psychological concepts of attitude change from the elaboration likelihood model (peripheral route to persuasion), false consensus effect, and mere-exposure effect.

Responses to this question were expected to demonstrate an ability to analyze an experimental design and interpret basic statistical results, specifically standard deviations. Responses were also expected to demonstrate an understanding of statistical significance. In addition, responses were expected to demonstrate a student's conceptual understanding of operational definitions in the context of an experimental research design.

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

Students varied considerably in how well they addressed the skills and content assessed by this question. Some responses indicated a solid understanding and ability to apply research concepts (operational definition, random assignment, standard deviations, statistical significance), while others were stronger in demonstrating a grasp of the social psychology conceptual knowledge. Some responses reflected strengths or weaknesses across these skill areas.

In general, responses tended to indicate an understanding of the concepts of the peripheral route of persuasion, the mere-exposure effect, and operational definitions, while many responses indicated less mastery of the concepts of random assignment and statistical significance.

Responses that scored highly on the question demonstrated an integration of conceptual knowledge with research and data analysis skills, for example, when explaining the meaning of standard deviations in the context of an applied social psychology research study.

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">Many responses described the false consensus effect in terms of an individual's opinion without referencing that the individual also has a belief about others' opinions. The false consensus effect reflects <i>both</i> an individual having a belief <i>and</i> an assumption that others also share that belief.	<ul style="list-style-type: none">"Although the marketing director thinks the game is fun, the false consensus effect may lead him to think others will love the game as well when they really have no interest."

<ul style="list-style-type: none"> • A common issue with applying the concept of standard deviation was describing differences in the mean or the different values of the standard deviations (one was larger than the other) between the groups without a reference to variability. Some responses incorrectly identified which group had more variability based on the standard deviations provided in the prompt. 	<ul style="list-style-type: none"> • “The difference between standard deviations in the study indicates that the people who observed the game demonstration had a bigger variety of scores around the mean score than the people who personally played the game.”
<ul style="list-style-type: none"> • Some responses conflated random assignment with random selection, e.g., describing random assignment as helping to ensure that the sample was representative. Many responses described random assignment as addressing the possibility of confounding variables or bias in general, rather than how random assignment addresses individual differences as potential confounding variables. 	<ul style="list-style-type: none"> • “Random assignment is when sample participants are randomly placed in different study groups. This is needed to determine cause and effect because it eliminates participant-related confounding variables and makes results most likely affected solely on the independent variable.”
<ul style="list-style-type: none"> • Some responses interpreted p values as indicating findings other than statistical significance, such as a proportion of individuals who liked the game. Some responses indicated that a low p value indicated that the results were not statistically significant or that there was no effect of the independent variable (observing vs. playing the game) on the dependent variable. 	<ul style="list-style-type: none"> • “The p value is less than 0.05 which allows MGC to conclude that the data in the study is statistically significant.”

Based on your experience at the AP[®] Reading with student responses, what advice would you offer teachers to help them improve the student performance on the exam?

- Use example research scenarios and have students practice applying research concepts to interpret them. For example, what could be a limitation or problem with the study, and how could the researchers address the issue using the correct terminology?
- Have students practice interpreting data from a chart or a table and applying it to a research scenario, such as drawing conclusions from descriptive statistics for different experimental groups.
- When teaching social psychological concepts such as the false consensus effect, ask students to identify the key parts of the definition and practice applying those parts to different examples.
- When teaching research concepts such as random assignment, explain both the definition of the concept and why the procedure is necessary for conducting research.

- Spend time helping students find ways to differentiate between commonly confused concepts, for example, central vs. peripheral routes to persuasion or random assignment vs. random selection. Asking students to indicate how two concepts are similar and then how they are different could help them clearly differentiate among concepts.
- Please have students format responses into paragraphs to differentiate among the concepts. It is challenging to distinguish between concepts when students write a single paragraph containing all seven concepts rather than writing seven distinct paragraphs that each address a singular concept.

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

Teachers can use sample FRQs in AP Classroom to help teach students how to write responses to the Research Design FRQs on the AP Exam. Having students write at least one Research Design FRQ for each unit will help them develop responding skills over time and for terms across the course. AP Daily videos also provide tips to students on how to write FRQ responses and how to differentiate between commonly confused terms.