

2024



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# AP<sup>®</sup> Psychology

## Scoring Guidelines

### Set 1

**Question 1: Concept Application****7 points****General Considerations**

- Answers must be cogent enough for the meaning to come through. Spelling and grammatical mistakes do not reduce a score, but spelling must be close enough so that the reader is convinced of the word.
- A response can earn points only if the student clearly conveys what part of the question is being answered. It is possible to infer the part of the question being answered if it is consistent with the order of the question.
- The response must apply the concept to the prompt. A definition alone will not earn the point, but a clear definition can support the application.
- Examples provided in the Scoring Guidelines for each of the points are not to be considered exhaustive.
- Within a point, a response will not be penalized for incorrect information unless it *directly contradicts* correct information that would have otherwise earned a point. For example, if a response applies a concept in two contradictory ways (such as identifying both the independent and dependent variables as the independent variable or describing proactive interference as interference from both older and newer information), the point is not earned.

NOTE: In certain cases, a response will not score if it includes a correct answer amongst multiple incorrect answers related to the same general concept/theory (e.g., a response that describes the Big Five trait of conscientiousness as being diligent, trusting, highly emotional, outgoing, and intellectually curious).

- Within a bulleted question part, if the response addresses details from a scenario other than the one in the prompt, the point is not earned.

**Part A** Gavin’s parents took him to his favorite science museum, and he explored all of the exhibits. One of the interactive exhibits featured glass marbles. He grabbed a large marble and tried to bounce it on the ground. At one point during the visit, he became separated from his parents, and it took a few minutes for them to find him. Later that night, he drew a colorful picture of the exhibits at the museum. The next day, Gavin brought his picture with him to preschool. While his grandmother drove, Gavin talked to her about the picture.

**Explain how Jean Piaget’s concept of assimilation could relate to Gavin’s experience with the glass marble.**

**1 point**

Response must indicate that Gavin attempts to treat the glass marbles like “balls” by trying to bounce them on the ground.

**Acceptable explanations include:**

- Gavin thought the marble would bounce like all other balls.*

**Unacceptable explanations include:**

Responses that refer to schema accommodation.

- Gavin now has a schema for “glass marbles” and knows they don’t bounce like “balls.”*
- Gavin thought the marbles were like bouncy balls, so he tried to bounce them. Then he changed his schema when he learned that glass marbles are different and cannot be bounced.*

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**Explain how egocentrism could relate to how Gavin interacted with his grandmother in the car.** **1 point**

Response must indicate that Gavin only considers his own perspective or assumes that others know what he knows when interacting with his grandmother.

**Acceptable explanations include:**

- *Gavin holds up the picture in a way where he is the only one who can see it, but he thinks his grandmother can see it.*
- *Gavin talks about the museum trip from his perspective and doesn't recognize his grandmother is busy driving.*

**Unacceptable explanations include:**

The response refers to Gavin being selfish.

- *Gavin does not care what his grandma thinks because all he cares about is the picture he drew.*

The response refers to Gavin telling his grandmother about the experience without referencing a lack of perspective.

- *Gavin tells his grandmother all about the trip to the museum.*
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**Explain how avoidant attachment could relate to Gavin when he was separated from his parents.** **1 point**

Response must indicate a lack of distress when separated from his parents.

**Acceptable explanations include:**

- *Gavin didn't get upset or cry when he was separated from his parents.*
- *When separated from his parents, Gavin spent the time playing by himself at different exhibits.*

**Unacceptable explanations include:**

- *Gavin was very fearful and anxious when his parents left him.*
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**Part B** Explain how each of the following terms could relate to Gavin in this scenario.

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**Serial position effect** **1 point**

Response must indicate that Gavin recalls information from the beginning or ending of his experience better than information that is in the middle of his experience at the museum.

**Acceptable explanations include:**

- *Gavin remembered the exhibits he visited at the beginning of the day better.*
- *Gavin remembered the exhibits he visited at the end of the day better.*
- *Gavin had trouble remembering which exhibits he visited in the middle of the day.*
- *Gavin remembered the exhibits he visited at the beginning and end of the day better than the ones in the middle of the day.*

**Unacceptable explanations include:**

Responses that refer to primacy or recency effects without reference to better recall.

- *Gavin remembered the exhibits he visited at the beginning of the day.*
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**Motor cortex****1 point**

Response must indicate that Gavin’s motor cortex controls his movements.

**Acceptable explanations include:**

- *Gavin uses more of his motor cortex to use his fingers to draw the picture.*
- *Gavin uses his motor cortex to grab the marble.*

**Unacceptable explanations include:**

- *Gavin moves a lot when he plays.*
- 

**Cognitive map****1 point**

Response must indicate that Gavin formed a mental picture/layout/orientation/representation of the museum or another location related to the scenario.

**Acceptable explanations include:**

- *Gavin remembered where the entrance was to the museum because of his mental map.*
- *Gavin has created a mental picture of the museum to help him draw an accurate picture of the layout.*

**Unacceptable explanations include:**

- *Gavin creates a cognitive map that helps him navigate around the museum.*
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**Cones in the retina****1 point**

Response must indicate that Gavin’s cones allow him to see color and/or detail (e.g., acuity, clarity, sharpness of vision).

**Acceptable explanations include:**

- *Gavin is able to create his picture because the cones in his retina enable him to see color and detail.*

**Unacceptable explanations include:**

- *Gavin uses his cones to see well.*
  - *Gavin can see movement out of the corner of his eye.*
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**Total for question 1 7 points**

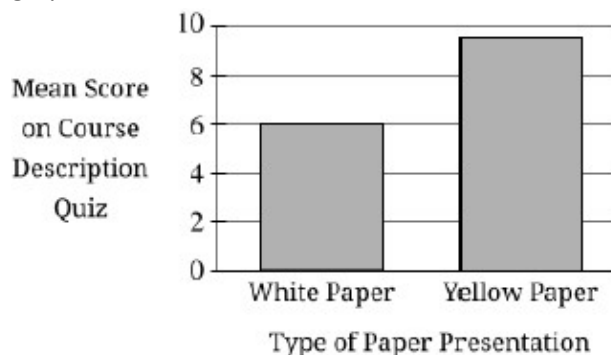
**Question 2: Research Design****7 points****General Considerations**

1. Answers must be cogent enough for the meaning to come through. Spelling and grammatical mistakes do not reduce a score, but spelling must be close enough so that the reader is convinced of the word.
2. A response can earn points only if the student clearly conveys what part of the question is being answered. It is possible to infer the part of the question being answered if it is consistent with the order of the question.
3. The response must apply the concept to the prompt. A definition alone will not earn the point, but a clear definition can support the application.
4. Examples provided in the Scoring Guidelines for each of the points are not to be considered exhaustive.
5. Within a point, a response will not be penalized for incorrect information unless it *directly contradicts* correct information that would have otherwise earned a point. For example, if a response applies a concept in two contradictory ways (such as identifying both the independent and dependent variables as the independent variable or describing proactive interference as interference from both older and newer information), the point is not earned.

NOTE: In certain cases, a response will not score if it includes a correct answer amongst multiple incorrect answers related to the same general concept/theory (e.g., a response that describes the Big Five trait of conscientiousness as being diligent, trusting, highly emotional, outgoing, and intellectually curious).

6. Within a bulleted question part, if the response addresses details from a scenario other than the one in the prompt, the point is not earned.

**Part A** Professor Gonzalez hypothesizes that students will remember more information from his detailed course description if it is printed on yellow paper than if it is printed on standard white paper. To test this hypothesis, he put the names of all his students into a bowl, then drew out names to assign them to two different groups. He gave one group of the students in his class a course description printed on white paper and gave the other group of students a course description printed on yellow paper. Students were instructed to thoroughly read the description outside of class in preparation for their next class. In the next class, he gave all students a ten-question quiz asking them about the information found on the course description. Professor Gonzalez then compared the number of correct answers for each group of students. The statistically significant results are depicted in the graph.



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**State the operational definition of the dependent variable.****1 point**

Response must indicate that the dependent variable is operationally defined as the student's score on the course description quiz.

**Acceptable explanations include:**

- *The dependent variable is operationally defined as the score on the course description quiz.*
- *The dependent variable is the quiz score/grade on the quiz.*
- *The number of correct answers on the quiz is the dependent variable.*

**Unacceptable explanations include:**

- *The dependent variable is the type of paper used.*
  - *The student's result on the quiz, and that's the dependent variable.*
  - *The mean score on the quiz.*
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**Identify the experimental group.****1 point**

Response must indicate that the experimental group is the group with the course description printed on yellow paper.

**Acceptable explanations include:**

- *The experimental group is the people who have the yellow paper.*

**Unacceptable explanations include:**

Responses that state the yellow paper without indicating the people/group.

- *The experimental group is the yellow paper.*

Responses that state a control group instead of an experimental group.

- *Example: The control group is the group with the yellow paper.*

References to taking the quiz on yellow paper do not score.

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**In addition to the manipulation of an independent variable, identify the procedure Professor Gonzalez used to make this study a true experiment.****1 point**

Response must indicate that the procedure used to make this a true experiment is random assignment.

**Acceptable explanations include:**

- *Professor Gonzalez randomly assigned the participants to groups.*
- *Professor Gonzalez put people in groups randomly.*
- *Professor Gonzalez puts the names of all students into a bowl and pulls them out of a bowl.*

**Unacceptable explanations include:**

Responses that refer to random selection/sampling.

- *Professor Gonzalez used random selection to make this a true experiment.*
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**Explain how the data as presented in the graph do or do not support Professor Gonzalez’s hypothesis.** **1 point**

Response must indicate that data support the hypothesis because the experimental group (i.e., the yellow paper group) scored higher on the test.

**Acceptable explanations include:**

- *Professor Gonzalez thought that the experimental group would score higher, and they did, so the data support the hypothesis.*
- *The bar for the yellow paper group is higher than the bar for the white paper group, which supports the hypothesis.*
- *The control group/white paper group scored lower than the experimental group/yellow paper group, which is what Professor Gonzalez expected.*

**Unacceptable explanations include:**

Responses that do not provide an explanation for data supporting the hypothesis.

- *The data do not support the hypothesis.*
- *The data **support the hypothesis** (needs to make clear what the hypothesis was).*

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**Part B** Explain how each of the following might relate to a student’s performance on any quiz.

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**Context-dependent memory**

**1 point**

Response must indicate that the student’s memory retrieval is affected if some external element (e.g., room, sensory cues, equipment) that is present when the information was learned/encoded is present/the same or absent/not the same as when they take a quiz.

**Acceptable explanations include:**

- *If students learn the information in a particular classroom, they should take a quiz in that same classroom so they can use the surroundings to cue them for their memories.*
- *If a student chews gum while studying, they should chew gum while taking a quiz.*
- *If students sit in different seats taking the quiz than when they learned that information, they will do worse on the quiz.*

**Unacceptable explanations include:**

- *Students must consider context in order to remember things well enough for their quiz.*

Responses that refer only to mood-dependent or state-dependent memory.

- *If a student is happy while learning the information, they will do better if they are happy when they take the quiz.*
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**Yerkes-Dodson law****1 point**

Response must indicate that students would perform best under a level of optimal arousal.

OR

Response must indicate that students would perform worse if they were under- or over-aroused.

Synonyms for “under-aroused” can include a reference to the amount (e.g., too little, under, insufficient).

Synonyms for “over-aroused” can include a reference to the amount (e.g., too much, overly, super).

**Acceptable explanations include:**

- *Students might be too aroused on the quiz, so they don't do well.*
- *Students may be at their optimal arousal, so they end up doing well on the quiz.*
- *Students are extremely disinterested/very bored in the class, so they don't do well on a quiz.*
- *Students who have a high level of arousal perform poorly on the quiz.*

**Unacceptable explanations include:**

Responses that refer to arousal without quantity (i.e., too much, too little).

- *Students may be relaxed, so they do well on the quiz.*
- *Students who are excited do poorly on the quiz.*

**Low level of the Big Five trait of conscientiousness****1 point**

Response must indicate that a low level of an enduring characteristic of conscientiousness would hinder student performance on the quiz (e.g., not being diligent, being less hardworking, being unorganized, being undisciplined, being irresponsible, being unprepared, etc.).

**Acceptable explanations include:**

- *Students who aren't hardworking may be hindered from doing well on the quiz.*

**Unacceptable explanations include:**

- *Students who are diligent do better on the quiz.*
- *Students who did not study hard did poorly on the quiz.*

**Total for question 2 7 points**