

# AP<sup>®</sup> PSYCHOLOGY

## 2010 SCORING GUIDELINES

### Question 1

For each of the pairs below, use an example to show how the first term in each pair affects or is related to the second. Definitions alone without examples will not score.

- Serial-position effect . . . recall
- Functional fixedness . . . problem solving
- Operational definition . . . replication
- Double-blind research . . . bias
- Operant conditioning . . . superstition
- Reinforcement . . . overjustification effect
- Myelin sheath . . . neural impulse

#### ***General Considerations***

1. Answers must provide an example that describes an accurate relationship between the first part of each item with the second part of each item. This description may be stated positively or negatively (e.g., "myelin improves the speed . . ." "lack of myelin reduces the speed . . .").
2. Simply writing "for example" as a prelude to a response does not guarantee that the response will qualify as an example.
3. Answers must be presented in sentences, and sentences must be cogent enough for students' meaning to be apparent. Spelling and grammatical mistakes do not reduce students' scores, but spelling must be close enough so that the reader is convinced of the word intended.
4. Within a point, students will not be penalized for misinformation unless it *directly contradicts* correct information that would otherwise have scored a point. An accurate example scores, even if provided with a definition that is not correct.
5. Students can only score points if information is presented in *context*. This means that they must clearly convey which part of the question is being answered before a point can be earned. However, it may be possible to infer context from the structure or ordering of the essay.

#### **Point 1: Serial-position effect . . . recall**

The example must include the ability to remember the first or last items in a sequence more easily (for example, describing primacy and/or recency effects) **OR** more difficulty remembering items in the middle of a sequence.

*Note:* Mention of "a list" is the minimum context for an correct example.

#### **Score**

- "It is easier to remember the first items on a list."

#### **Do not score**

- "Remembering where in the house a friend's phone number is in order to be able to call them" (because this is referring to method of loci).

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### Question 1 (continued)

#### **Point 2: Functional fixedness . . problem solving**

Students must include an example of how *failing* to find a novel, unintended use for a specified object prevents finding a solution to a problem **OR** of how overcoming the fixation on the original use of a specified object facilitates solving a particular problem. The feasibility of the example is not important.

*Note:* A specific object and a specific problem (or action linked to achieving a goal) must be included in the answer.

#### Score

- "Because Moe had no hammer and didn't realize he could use his baseball bat, he could not figure out how to drive a nail."
- "Instead of thinking of his baseball bat as something that could only hit baseballs, Moe overcame this limitation and used the bat to drive the nail."

#### Do not score

- "Moe used a baseball bat to drive a nail" (because this is *not* an example of functional fixedness).
- "Moe did not have a clothesline and could not think of any other way to hang his clothes" (because no object is specified that Moe can think about in novel ways to overcome his problem, nor is any object specified that Moe is unable to think differently about so that he thus fails to solve his problem).

#### **Point 3: Operational definition . . replication**

Students must include an example of how defining a variable (or term or concept) in a study facilitates future repetition of the study.

#### *Notes*

- Referring solely to the overall step-by-step procedures of the study (how the study is done) without mentioning the definition of a variable (or term or concept) will not score.
- Mentioning a study or experiment is the minimum context for an example.

#### Score

- "Researchers define the variables in a study so that the study may be more easily repeated."

#### Do not score

- "Carmines writes down all the procedures for how an experiment is performed so that the experiment can be repeated" (because this is not referring to defining specific variables in a study).

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### Question 1 (continued)

#### **Point 4: Double-blind research . . bias**

The example must indicate that *both researchers and participants* are not informed about some aspect of a specific study in order to reduce the possibility of confounding factors.

#### Notes

- An example of some aspect of a specific study must be given. For example, referring to a “placebo” does provide a minimum context for an example. Simply alluding to “an experiment” does not provide a minimum context for an example.
- Students do not have to provide a specific example or description of bias, as long as they mention that it is reduced by this procedure.
- If a student gives a full description/definition of “double-blind,” then an example of part of that procedure will score.

#### Score

- “When testing a new drug, neither the participants nor experimenter knew whether a particular participant was receiving a drug or a placebo, thus lessening the amount of bias in the study.”
- “An experiment where neither the participants nor the experimenters know which condition a participant is in, in order to reduce bias. For example, in a drug study, subjects do not know whether they are getting an actual drug or a placebo.”

#### Do not score

- “An experiment where neither the participants nor the experimenters know which condition a participant is in, in order to reduce the amount of bias” (because this is not a specific example).
- “A placebo experiment where neither the participants nor the experimenters know they are in a study” (because the participants and experimenters need to be blind to some *aspect* of the study, not to the existence of the study itself).

#### **Point 5: Operant conditioning . . superstition**

The example must show how random or noncontingent consequences alter (or maintain) a behavior that is not tied to the consequences. The noncontingency aspect of the relationship between the response and the consequence must be clear.

*Note:* Students may also describe how some specific operant procedures like reinforcement, extinction or punishment might eliminate a specific superstitious behavior. The behavior that is specified must clearly be a superstitious behavior (elimination of common behaviors or mental disorders will not score).

#### Score

- “A person wears a green shirt and scores well on an exam and so now wears the green shirt to every exam.”
- “Guido brings a rabbit’s foot into work and gets a promotion, which reinforces carrying the rabbit’s foot.”
- “A person overcomes his superstitious behavior of not walking underneath ladders by being reinforced to walk under them.”

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### Question 1 (continued)

#### Do not score

- "A student studies and gets good grades so continues to study" (because the consequence of good grades is contingent on the behavior of studying).
- "A student is told that he needs to avoid black cats to avoid bad luck" (because it is *not* an example of operant conditioning).
- "A student gets shocked every time a cat is presented and then develops a fear of cats" (because this is more clearly an example of classical conditioning).
- "Extinction can be used to eliminate Lucy's fear of snakes" (because "fear of snakes" is not clearly a superstition).

#### **Point 6: Reinforcement . . overjustification effect**

The example must include a situation in which an actual or potential external reinforcement reduces or eliminates an intrinsic motive for a behavior.

*Note:* A response that uses the reduction of a student's "interest in" or "desire to perform" a behavior will score because it alludes to a student's intrinsic motivation for the task.

#### Score

- "After being given money to read books, Edna loses her desire to read books."

#### Do not score

- "A child believes that for every good thing she does, she should receive reinforcement" (because there is no mention of a reduction in intrinsic motivation).
- "A child stops reading books when he is no longer reinforced" (because this describes extinction and there is no mention of a reduction in internal motivation).

#### **Point 7: Myelin sheath . . neural impulse**

The example must describe how the presence of myelin sheath increases the speed of neural impulses or how the absence of myelin sheath decreases the speed of neural impulses.

#### Score

- "The myelin sheath allows the neuron to send its signal more quickly."
- "Loss of the myelin sheath leads to slower neural impulses."

#### Do not score

- "The myelin sheath increases the strength of a neural impulse" (because it does not address the speed of the neural impulse).