

AP[®] Psychology 2010 Scoring Guidelines

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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.

<u>Score</u>

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

Do n<u>ot score</u>

• "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).

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

- o 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.
- o 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

• "Carmine 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).

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

- o 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.
- o 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.
- o If a student gives a full description/definition of "double-blind," then an example of part of that procedure will score.

<u>Score</u>

- "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"

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).

Question 2

At a schoolwide pep rally preceding a big game at Williams James High School, each grade has a designated t-shirt color and seating area in the bleachers. Student leaders organize classes so that their colored shirts combine to form the school flag. The coach gives an exciting speech, the cheerleaders perform a routine, and the band plays the school song while the students sing in unison.

Explain the behavior and perceptions of the participants in the pep rally using the concepts below. Be sure to apply the concepts to the scenario in your explanation.

- Cocktail party effect
- Conformity
- Deindividuation
- Figure ground
- Occipital lobe
- Procedural memory
- Sympathetic nervous system

General Considerations

- 1. 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.
- 2. Within a point, students will not be penalized for misinformation unless it *directly contradicts* correct information that would otherwise have scored a point (e.g., "The sympathetic nervous system increases heart rate. The sympathetic nervous system decreases heart rate.").
- 3. Students can score points only if information is presented in *context*. This means that they must clearly convey which part of the question is being answered. For example, if a student correctly explains that "during the coach's speech, a student hears her name called out in the noise and turns her head," but does not identify this as the cocktail party effect, the point will not be earned. However, it may be possible to infer context from the structure or ordering of the essay.
- 4. Throughout the essay, definitions alone without application are not sufficient to score points, but definitions can establish and/or enhance the context for the example.
- 5. Because definitions alone do not score, if a student provides an incorrect definition but a correct application, score the point based on the application.
- 6. Every point requires students to relate their answers to the scenario. The scenario is not limited to the pep rally. The application could include experiences related to the various participants or activities that occur before, during or after the pep rally (football game, practice, etc.). Context may be established by using words such as "student/students," "participants," "the event," etc.
- 7. Students may address either a behavior or a perception for each point.
- 8. Examples provided for each of the following points are not to be considered exhaustive.

Point 1: Cocktail party effect

The example must demonstrate the ability to focus on one voice (or voices) while excluding other noises.

Score

• "Despite all the noise at the pep rally, the student could have heard his name said by another student two bleachers down."

Question 2 (continued)

Point 2: Conformity

Students must provide a *specific example* of an individual (or individuals) doing something because the larger group does.

Score

• "All students sit and listen to the coach's speech because everyone else does."

Do not score

- "Going to the pep rally" or "taking part in the pep rally" without a specific behavior.
- Compliance (a direct request) or obedience to an authority figure.

Point 3: Deindividuation

The example must demonstrate an individual's (or individuals') loss of identity, self-restraint (e.g., "do something that they might not normally do"), individuality or sense of self because he or she is in a group.

Note: The example may illustrate conformity as long as deindividuation is established as a loss of identity in a group.

Score

- "The individual personalities would be lost by each student and they would act as a group."
- "Deindividuation is the loss of identity in a group with all the sophomores wearing green shirts."

Point 4: Figure ground

Students must provide *specific examples* to distinguish between a figure (e.g., cheerleaders, coach) and [back]ground (e.g., bleachers, court), *labeling* which example is the figure **OR** the ground.

Note: Auditory examples will also score.

Score

- "The school mascot stands out as the figure in his bright yellow costume against the gym floor."
- "A student can hear the coach's speech against the background of crowd noise."

Point 5: Occipital lobe

The student must establish that the occipital lobe is involved in vision.

Score

- "At the pep rally, the occipital lobe allows the people to see (or look)."
- "The occipital lobe allows the students to see the cheerleaders' performance."

Question 2 (continued)

Point 6: Procedural memory

Students must illustrate memory for a skill, a step-by-step process or knowledge of *how to perform* a specific task.

Score

• "Cheerleaders show procedural memory when they perform their routine."

Do not score

• Declarative memories ("factual information," such as "where to sit," "what shirt to wear," or "words to the song").

Point 7: Sympathetic nervous system

Students must include a physiological component in the example (e.g., pupils dilate, heart rate increases, adrenaline is released).

Note: The words "arousal," "pumped up," "excited" or "energy" alone are not enough. Students must tie the application directly to the body.

Score

- "The exciting speech has caused the sympathetic nervous system to increase the heart rate."
- References to "fight or flight" or "arouses the body" also score.