AP CollegeBoard

AP® Psychology

Sample Student Responses
and Scoring Commentary
Set 2

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Free Response Question 1

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Question 1: Concept Application   7 points

General Considerations

1. Answers must be cogent enough for the student's meaning to come through. Spelling and grammatical mistakes do not reduce a student's score, but spelling must be close enough so that the reader is convinced of the word.

2. A student 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.

4. Examples provided in the Scoring Guidelines for each of the points are not to be considered exhaustive.

5. Within a bulleted question part, a student will not be penalized for misinformation unless it *directly contradicts* correct information that would otherwise have earned a point. For example, if a response applies a concept in two contradictory ways (such as identifying both the measured variables as the independent variable or describing proactive interference as interference from both older and newer information), the point is not earned.

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   Damian spends a great deal of time playing video games. He prefers complex games that require skill in moving from one level of competence to the next. He regularly compares his progress with that of his online friends and gets tips from them for more successful strategies.

Explain how each of the following psychological concepts applies to Damian's gaming behavior.

| **Motor Cortex** | **1 point** |

The response must indicate that the motor cortex is responsible for some aspect of Damian's voluntary movement in gaming.

Acceptable explanations include:

- *Damian uses his motor cortex when playing games because it helps him push the buttons on the controller.*
- *Damian's motor cortex has a larger area devoted to his fingers because he uses them so much when he games. This allows him to have finer motor control over his fingers than other people.*

Unacceptable explanations include:

Responses that refer to reflexive or involuntary movements.

- *Damian's motor cortex would make him jump if he was startled by a loud noise.*

| **Algorithm** | **1 point** |

The response must indicate a step-by-step procedure (e.g., formula, equation, set of rules, trying every option) used in Damian's gaming.

Acceptable explanations include:

- *Damian knows there are four steps to passing through a level, and he uses the same sequence of steps each time in order to find the one that works for each level.*
- *Damian applies a step-by-step procedure he learned on the internet to advance through the game.*
- *Damian tried his normal technique to get through Level 8 of his game, but it didn't work so he then tried all the other solutions he knew until he found the one that worked.*

Unacceptable explanations include:

Responses that refer to heuristics.

- *Damian uses a shortcut rule he learned from his buddy to beat the hardest level in the game.*
- *Algorithms will affect Damian's gaming because his brain will begin to pick up on patterns of the game and help him anticipate what to do in certain situations.*

Reciprocity Norm   **1 point**

The response must indicate that Damian, or another gamer, did something beneficial for the other because they received or anticipated receiving something in return from the other.

Acceptable explanations include:

- *Damian helped his online friends with tips for winning the game because they shared their best moves with him.*

- *Damian knows that if he shares his best moves with his online friends, they will help him when he needs it.*

- *Damian helped one of his online friends who was having trouble with gaming addiction because that friend helped him when he was struggling earlier.*

Unacceptable explanations include:

- *Damian agrees to give a friend gaming tips.*

Monocular Depth Cue of Interposition   **1 point**

The response must indicate that Damian, while playing the video game, perceives objects that are partially blocked as being further away than the objects that are blocking them.

Acceptable explanations include:

- *Damian knows a character is farther away from him than a tree due to the monocular depth cue of interposition because the character is partially hidden by that tree.*

Unacceptable explanations include:

Responses that refer to the use of any other monocular depth cue.

- *Damian sees two parallel lines appear to converge in the distance, giving him the illusion of depth.*

Responses that refer to the use of binocular cues.

- *The images on Damian's retinas differ, allowing him to perceive depth.*

Mental Set   **1 point**

The response must indicate that Damian keeps playing his video games with the same strategy that has been successful in the past.

OR

The response must indicate that Damian needs to modify a strategy that has been successful before but is no longer successful.

Acceptable explanations include:

- *Damian has been pretty successful in the game so far, so he keeps using the same strategies for every level.*

- *Damian has been using the same strategy for every level, until level 9, where his strategy no longer seems to be working. He must adjust his mental set about his game play to defeat the level.*
- *Damian thinks that the hammer tool can only be used in one way, but if he uses it in a new way, he can win the level faster.*

Unacceptable explanations include:

- *Damien is set in his ways of thinking about the game.*

Part B   Damian's parents are concerned because Damian has been missing meals, has lost weight, and has made no effort to complete his college applications.

Explain how Damian's parents could use a behavioral approach to get him to apply to college using a fixed-ratio schedule.   **1 point**

The response must indicate that Damian's behavior will be reinforced after completing a specific number of application-related behaviors.

Acceptable explanations include:

- *Damian's parents let him game for 1 hour if he writes 3 essays for his college applications.*
- *Damian's parents reward him with playing video games for every college application that he finishes.*

Unacceptable explanations include:

Responses that refer to a variable or interval reinforcement schedule.

- *Damian is rewarded sometimes after completing an application and sometimes after saying he will complete it.*
- *Damian's parents reward him at the end of each week that he completes a college application.*

Explain how a psychoanalyst would use free association with Damian.   **1 point**

The response must indicate that the therapist will encourage Damian to express thoughts and feelings without censoring himself.

Acceptable explanations include:

- *Damian's therapist tells him to say everything that comes to mind without censoring to help him figure out his problems.*
- *The psychologist uses free association with Damian so that he can say whatever he wants without holding back.*

Unacceptable explanations include:

Responses that refer to dream analysis.

Responses that refer to word association.

- *The psychologist asks Damian to tell him about his dreams.*
- *The psychologist asks Damian to say the first thing that comes to mind after giving him a word like "mother."*

Total for question 1   7 points

Begin your response to each question at the top of a new page. Do not skip lines.

A) Motor cortex is located in the frontal lobe of the brain. and is responsible for voluntary movements. With the ___ Cortex, Damia is able to move his limbs. such as is fingers and arm freely as ___ wants to have mim un control over his aming device. If e wants to move his inger up to make his gaming character move. articular way, his motor cortex will g ant h that ability to do so.

- Algorithm i the step. by tep. process o.f thinking that guarantees a solution. Damian may ~~create a formula to time~~ follow a tutorial for a specific level. to enhanc his ~~play~~ gaming experience and guarantee a victory on a gaming evel so he can move next level.

- Reciprocity no is t. e. expectation that other people will elp in return i.e I helped them before. Since ~~Damian has aaais~~ often. receives tips from his friend bout g ming, Damian will be expected (and most licely will). help his online friends the next time they ee d. elp..

- Interposition is the monocular depth cue of ~~per~~ nderstanding that an object that is blocking the view. f another object is closer than the other object. ~~Therefore, when~~

Page 2

Begin your response to each question at the top of a new page. Do not skip lines.

~~Damian~~ can use this monocular depth cue of interposition ~~especially during a team game during game~~ to assume ~~that~~. Therefore, if during Damian's game, an enemy blocks Damian's sight of another enemy, Damian can assume that the blocking enemy is closer and aim for that blocking enemy first for a more effective victory.

- Mental set is ~~the tendency~~ similar to the concept of scheema. Mental ~~startto~~ set is the tendency to solve a problem a particular way after experiencing that particular method working previously. Therefore, if Damian experience that shooting an enemy in the head kills them faster and earns Damian more points, then he will repeatedly aim for other enemies' heads when playing the game.

B) Fixed ratio schedule is a way of operant conditioning where a reinforcer is given after ~~a certain time fixed~~ the ~~behavior~~ desired behavior is completed a certain number of times (such as giving a reinforcer after every 3 times the behavior has been completed). Damian's parents may ~~encourage~~ get Damian to apply to college by giving him $20

Page 3

Begin your response to each question at the top of a new page. Do not skip lines.

every time fter Damian completes 3 short answer questions on his college application.
— Free association is when the patient is encouraged to y whatever comes to mind. In order for psych analyst to use free e association on Damian, the therapist will first one to crete a relaxing atmosphere to encourage Damian's ~~unconscious~~ repressed unconscious es to be expressed to ig re out the true cause behind why Damia s been exhibiting conc y behavor uch as missing meals, osing weight, and not completing his college appli tions.

Begin your response to each question at the top of a new page. Do not skip lines. e

The motor cortex allows one to move one's muscles. Damian's motor cortex lets him move his fingers in order use his controller on his games. An example of an algorith Damian could use when playing a game could be pressing the up arrow on his controller twice in order to make his character jump every time an online friend tells Damian how to win a level of a game, reciprocity norm will likely make him feel obligated to help his friend with a different level to repay him. ~~An example of monocular depth cue of interposition could be Damian's elf if a current standing in a hole Damian knows that his character is smaller than the whole because he can detect the arch that~~. Lastly, Damian's mental set focuses is solely on the game when he is playing and isn't distracted by other things like his mom talking to his dad in the other room. His parents could use a red-ratio schedule to get him to apply to college by buying him a new video game for every application completes. Additionally he would have to rewarded after completes each set of the applications. A psychoanalyst would use free association with by letting him talk about whatever wanted in a relaxed, casual manner 1. They also would interupt or intervene if he goes off of his original topic. Monocular depth cue of interposition is when each eye receives a slightly different image when viewing something. Damian uses this to know that his controller is right in between his eye's images so he can accurately click the right buttons

Begin your response to each question at the top of a new page. Do not skip lines.

Damian's motor cortex allows him to move his hands to play videogames. Damien has developed an algorithm that helps him determine what to do in his game based on whats going on. Damians monocular depth cue of ~~interspection~~ interposition helps him determine where he is at in his game. ~~Damien~~ Damian must have a proper and healthy mental set to beat a level. Since Damian is regularly comparing his progress it has become a reciprocity norm. Damian's parents can get him to apply to college by setting a fixed-ratio schedule. This schedule may be something along the lines of, every hour he spends working on his college applications, is an hour he can play video games. A psychoanalyst would use free association with Damian by trying to get Damian to associate playing video games with the negative effects its having on him; missing meals, weight loss, and no effort towards college applications.

Question 1

Note: Student samples are quoted verbatim and may contain spelling and grammatical errors.

Overview

This question asked students to apply concepts from several areas of psychology to a real-world scenario. These domains of psychology included physiological psychology, cognitive psychology, social psychology, perception, behavioral theory, and clinical psychology. The responses needed to show understanding of the concepts and how they apply to the scenario.

Sample: 1A
Score: 7

The response earned point 1 because the response indicates that the motor cortex enables Damian to move "his fingers and arm freely as he wants to have maximum control over his gaming device." The response earned point 2 because the response indicates that this problem-solving strategy is a "step by step process" and explains that following a "tutorial for a specific level" will enhance Damian's game playing. The response earned point 3 because it indicates that Damian received a favor ("often receives tips from his friends"), and he will now help them. The response earned point 4 because the response indicates that "an object that is blocking the view of another object is closer" and applies it to Damian's ability to see depth in his game. The response earned point 5 because the response indicates that Damian keeps playing his video games with the same strategy that has worked in the past. The response earned point 6 because it indicates that Damian's parents "get Damian to apply to college by giving him $20 every time after Damian completes 3 short answer questions on his college application." The response earned point 7 because the response indicates that Damian is "encouraged to say whatever comes to mind" and then explains that this method will "encourage Damian's repressed unconscious urges to be expressed."

Sample: 1B
Score: 4

The response earned point 1 because the response indicates that Damian's motor cortex "let's him move his fingers." The response earned point 2 because it indicates that Damian uses a set of rules while playing the game ("pressing the up arrow on his controller twice in order to make his character jump every time"). The response earned point 3 because the response indicates that Damian has received something beneficial ("an online friend tells Damian how to win") and provides something in return ("help his friend with a different level to repay him"). The response did not earn point 4 because the response does not indicate an accurate description of interposition and its relationship to perceiving depth. The response did not earn point 5 because it does not indicate a correct application of mental set. The response earned point 6 because the response indicates that Damian's behavior will be reinforced after completing a specific number of application-related behaviors ("buy him a new video game for every two applications he completes"). The response did not earn point 7 because the response does not indicate that Damian does not censor his thoughts even though the response mentions that Damian can "talk about whatever he wanted."

Question 1 (continued)

Sample: 1C
Score: 1

The response earned point 1 because the response indicates that this brain region, the motor cortex, allows Damian to "move his hands to play." The response did not earn point 2 because it does not indicate a step-by-step procedure used in Damian's gaming. The response did not earn point 3 because the response does not correctly address the prompt. The response did not earn point 4 because the response does not correctly indicate perceptual cue or its relation to depth perception. The response did not earn point 5 because it does not correctly apply the concept. The response did not earn point 6 because the response does not indicate a specific number of application-related behaviors, and it only addresses time ("every hour"). The response did not earn point 7 because it does not indicate that Damian is encouraged to express his feelings without censoring them.