

# AP<sup>®</sup> PSYCHOLOGY

## 2016 SCORING GUIDELINES

### Question 2

#### General Considerations

1. Answers must be presented in sentences, and sentences 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 score points only if the student clearly conveys which part of the question is being answered. It is possible to infer what part of the question is being answered if the response is consistent with the order of the question.
3. Definitions alone are not sufficient to score points. An incorrect definition does not negate a correct explanation.
4. Within a point, a student will not be penalized for misinformation unless there are aspects of the student's explanation that *directly contradict* one another.
5. Rubric examples provided for each point are not exhaustive.
6. To earn a point, the student must describe each concept in a way that indicates understanding.

**Part A:** Explain how each of the following might help Danny succeed with this task. Definitions alone will not score.

#### Point 1: Distributed Practice

Student's response must indicate studying that is spaced out or spread out over multiple time periods for greater success.

- Score: "Spacing effect" as describing distributed practice.
- Score: "Not cramming" as describing distributed practice.
- Do NOT Score: References to grouping or chunking without an indication of spaced practice over time.

#### Point 2: A Mnemonic Device

Student's response must describe a technique or memory aid such as acronyms, method of loci, or chunking to help remember geographic terms for greater success.

- Note: Examples cannot be memory aids dealing only with rote rehearsal, but must have an association, connection, or meaning to something beyond the material being learned.

#### Point 3: Secondary Reinforcer

Student's response must include a *previously administered* secondary reinforcer such as money, grades, praise, etc., as a way of helping Danny succeed on this task.

- Score: References to negative secondary reinforcers, if they help Danny succeed.
- Do NOT Score: References to primary reinforcers, such as food, candy, water, etc.
- Do NOT Score: "Treat," "prize," or "reward" alone as examples of secondary reinforcers because they do not differentiate from examples of primary reinforcers.
  - Note: Secondary reinforcers are conditioned (previously neutral).

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### Question 2 (continued)

- Note: This is a behavior point, rather than a motivation point, so reinforcement must have strengthened behavior to prepare for the task. Secondary reinforcement administered for success on the geography quiz itself does not score.

#### Point 4: Big Five Trait of Conscientiousness

Student's response must indicate that enduring characteristics of conscientiousness would result in improved studying and/or performance. These could include traits of organization, discipline, diligence, responsibility, industriousness, readiness, preparedness, etc.

- Score: "He is organized" because this is an enduring personal trait of conscientiousness.
- Do NOT Score: "He has organizational skills" because this may not apply across all situations.
- Do NOT Score: Temporary states, motivation, or level of attention.

**Part B:** Explain how each of the following might hinder Danny's success with this task. Definitions alone will not score.

#### Point 5: Retroactive Interference

Student's response must show how learning new information may impair the recall of previously learned information, hindering Danny's success with this task.

- Note: The direction of interference must be correct.

#### Point 6: Self-fulfilling prophecy

Student's response must indicate that Danny's (or others') *expectation* that he would not do well hindered his success with this task.

- Do NOT Score: Negative outcomes caused by stress or factors other than expectations.
  - Note: There must be both a negative expectation about success and a negative outcome.

#### Point 7: Sympathetic Nervous System

Student's response must refer to a negative impact due to the level of sympathetic arousal. This may be indicated through specific physiological responses such as increased heart rate, blood pressure, sweating, etc. on performance.

- Score: Excessive arousal (anxiousness, alertness) produced by the sympathetic nervous system.
- Score: Insufficient arousal produced by the sympathetic nervous system can hinder his success.
- Score: "Fight or flight" as example of arousal.
- Do NOT Score: "Nervous" or "nervousness" alone because it simply repeats wording in the question.
- Do NOT Score: "Stress" alone because it is too general.

ANSWER PAGE FOR QUESTION 2

Distributed practice is practice/rehearsal of material over time. This will help Danny because it is proven that practicing material over time, rather than cramming, results in better retention of material, so Danny will better know the capitals. A mnemonic device is a memory tool creatively relating the word to its definition or using something related. Danny can find a ~~better~~ creative way to connect the countries with their capitals, and they will come to his mind quicker when he has to recall them. A secondary reinforcer, when given, results in the action being rewarded being more likely to occur. If Danny is offered money as a reward for ~~doing well on the quiz~~ <sup>studying and</sup> knowing a capital, he will be more likely to remember other capitals and study in order to receive more money in the future. A Big Five trait of conscientiousness is something looked at by psychologists to determine what characteristic (intrinsic) is most prevalent. If they determine that Danny is diligent, then he will be more likely to stick to his studies and be determined to know all the capitals. Retroactive interference is the ~~loss of old~~ <sup>loss of old</sup> ~~men~~ <sup>men</sup> effect of new learning on old knowledge. Danny may already know some capitals prior to the assignment, and as he studies more capitals, he may have a difficult time remembering recalling the ones he already knew. Self-fulfilling prophecy is when you think something will happen, so it is more likely to fulfill happen. If Danny thinks that this is an enormous task and he'll fail the quiz, then he will fail the quiz because he thinks

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2A  
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**Question 2 is reprinted for your convenience.**

2. In a geography course, Danny is required to learn the capital cities of every country of the world. At the end of the semester, the professor will randomly select twenty countries and give each student an oral quiz on the capital cities in front of the class.

Part A

Explain how each of the following might help Danny succeed with this task. Definitions alone will not score.

- Distributed practice
- A mnemonic device
- Secondary reinforcer
- Big Five trait of conscientiousness

Part B

Explain how each of the following might hinder Danny's success with this task. Definitions alone will not score.

- Retroactive interference
- Self-fulfilling prophecy
- Sympathetic nervous system

that will happen and nothing can help. The sympathetic nervous system, a.k.a. fight or flight, is active in situations of high arousal. As part of the autonomic nervous system it works involuntarily to protect the body from danger. If Danny is really nervous about the quiz, his body will release a lot of adrenaline and his body will be too aroused to perform at its best since the task requires much less energy and arousal to complete than what he is being provided with.



## ANSWER PAGE FOR QUESTION 2

2.A. Distributed practice is spreading out practice over time to allow the slow, deep learning/memorization of something. In this case, distributed practice may help Danny because if he learns two cities every day up until the test he will not feel stressed the night before and try to cram learn all the capitals. A mnemonic device is a tool used to help remember something in a clever way. - for example, Wilhelm Wundt was a structuralist, so to remember this the mnemonic device, "Wilhelm, Wundt you help me build my structure?" is a clever way to remember this fact. If Danny uses this form of device for the capitals he can help himself easily memorize them in a semi-fun way as well.

Mnemonics relieve some of the pressure of pure memorization and allow catchy slogans or abbreviations to be the memory tool.

A secondary reinforcer is something like money, that is not used to maintain health directly like food or drink. A secondary reinforcer reinforces a behavior by providing a reward. In this case, if Danny was ~~paid~~ told he would get \$100 if he gets an A on the quiz, he will be motivated to study and do well. The Big

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- Distributed practice
- A mnemonic device
- Secondary reinforcer
- Big Five trait of conscientiousness

Part B

Explain how each of the following might hinder Danny's success with this task. Definitions alone will not score.

- Retroactive interference -
- Self-fulfilling prophecy - says can't
- Sympathetic nervous system - get nervous

Five trait of conscientiousness is wanting to do well for yourself and others. If Danny's parents support him + help him, as well as Danny making a study group of his peers in the class, this could help him to better learn the capitals, as he feels a responsibility to them as well as to himself.

B. Retroactive interference is a social influence on Danny that would lead him to do poorly. If he hears others didn't do well on the quiz, or that others aren't studying he will lose motivation or confidence, hindering his success. A self-fulfilling prophecy is when a person states that they can't do something and virtually gives up

and fulfills what they said, about how they can't do it. If Danny tells himself "It doesn't matter if I study, I'm going to fail anyways" he won't study, and then will fail, thus hindering his success. ~~There~~ The Sympathetic nervous system is the system related to the bodies "fight or flight" response. This causes the body to speed up respiration, heart rate increases, sweat, and maybe even throw up. If Danny gets incredibly nervous going into the quiz, his body will kick into this state, and he ~~may~~ literally "flight" and run away, or get visibly sweaty and sick, forcing him to not be able to focus and calmly recall his capitals from memory, ~~an~~ ultimately hindering his success on the quiz.

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If Danny demonstrates distributed practice and spreads out the time that he practices the capitals of countries, then ~~he~~ he will see better results because you tend to forget a lot of information if you cram it all at the last minute. Mnemonic devices are also great study tools because he can make a similar sound, or use ~~an~~ an object or a word to remember that specific capital. Such as imagining rich people in Richmond. Danny can use a secondary reinforcer as an incentive, such as, "I really enjoy learning ~~the~~ the capitals of countries because I find it interesting." It will make him study more, and want to learn more capitals if he finds a positive outlook on it. If Danny is really trying to pay attention while he learns these capitals, he will receive greater results because he is demonstrating attentiveness, and he is also demonstrating ~~the~~ the big five trait of conscientiousness. However, he must be attentive and learn how to process the information. If Danny experiences retroactive interference, ~~such as~~ ~~getting~~ such as getting a concussion,

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Part A

Explain how each of the following might help Danny succeed with this task. Definitions alone will not score.

- Distributed practice
- A mnemonic device
- Secondary reinforcer
- Big Five trait of conscientiousness

Part B

Explain how each of the following might hinder Danny's success with this task. Definitions alone will not score.

- Retroactive interference ✓
- Self-fulfilling prophecy
- Sympathetic nervous system

then he may not remember anything that he learned before he got the concussion, and this will hinder his success because he will have to learn, and process the information all over again. Danny also may be too focused on the self-fulfilling prophecy, and want to learn the capitals only to get a good grade. This is a negative reinforcer, and it may hinder his performance because he ~~isn't~~ doesn't have an ~~intrinsic~~ interest in gaining knowledge on the capitals for his ~~satisfaction~~ satisfaction, he is interested in gaining knowledge ~~to~~, so he doesn't fail.

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ADDITIONAL ANSWER PAGE FOR QUESTION 2

Danny's sympathetic nervous system is made in order to retain information. If Danny never usually studies, he may have a hard time studying and remembering the capitals, so he may not do well.

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## 2016 SCORING COMMENTARY

### Question 2

#### Overview

The question required students to respond to two aspects of a scenario that described Danny's upcoming geography quiz on countries and capitals.

The question was composed of two parts: Part A required the student to show understanding of learning and cognition, in terms of distributed practice, a mnemonic device, a secondary reinforcer, and the Big Five trait of conscientiousness, by explaining how these concepts might help Danny succeed with this task. Part B required the student to discuss how elements of memory (retroactive interference), motivation (self-fulfilling prophecy), and physiology (sympathetic nervous system) might hinder Danny's success with this task. For each score point, students were required to demonstrate an understanding of the concept and an ability to apply it to the appropriate context.

#### Sample: 2A

##### Score: 7

The response earned point 1 because it discusses the rehearsal of material over time, and not cramming. The response earned point 2 because it refers to a creative way to connect the countries with capitals, which helps Danny succeed. The response earned point 3 because it refers to money as a previously administered secondary reinforcer for studying, which would help Danny on the quiz by making him more likely to study for it. The response earned point 4 because it indicates diligence as an enduring characteristic that will help Danny succeed. The response earned point 5 because it explains that as Danny studies more capitals, he may have difficulty remembering the ones he learned in the past. The response earned point 6 because it describes an expectation of failing the quiz and an outcome of failing the quiz. The response earned point 7 because it describes the activation of the sympathetic nervous system and excessive arousal, which will prevent Danny from performing at his best.

#### Sample: 2B

##### Score: 4

The response earned point 1 because it explains that distributed practice would help Danny, and that he should spread out his study over a number of days. The response earned point 2 because it describes a mnemonic device as a creative memory tool that Danny can use, such as a catchy slogan or abbreviation. The response did not earn point 3 because it describes secondary reinforcement as being administered after the quiz, rather than prior, as a way to increase studying for the quiz. The response did not earn point 4 because it describes a temporary state of wanting to do well, rather than an enduring characteristic of conscientiousness. The response did not earn point 5 because it does not demonstrate understanding of retroactive interference. The response earned point 6 because it states that if Danny believes that he will fail, then he will not study, and then he will fail. The response earned point 7 because it explains that Danny's sympathetic nervous system will create specific physiological arousal, hindering his success.

#### Sample: 2C

##### Score: 2

The response earned point 1 because it describes distributed practice as spreading out studying, and not cramming, which will help Danny succeed. The response earned point 2 because it describes associations or connections that can be made in order to remember capitals. The response did not earn point 3 because it does not describe a previously administered secondary reinforcer as a way to help Danny succeed. The



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**Question 2 (continued)**

response did not earn point 4 because it only describes a temporary level of attention, rather than an enduring characteristic of conscientiousness. The response did not earn point 5 because it does not explain how new information would hinder recall of old information in Danny's studying. The response did not earn point 6 because it does not explain a specific negative expectation and a negative outcome. Instead it states that Danny's studying is only for a good grade. The response did not earn point 7 because it does not describe physiological arousal of the sympathetic nervous system as hindering Danny's success on the quiz.