

AP[®] PSYCHOLOGY

2011 SCORING GUIDELINES

Question 2

Savannah is a junior in high school and is preparing for an exam in her beginning Japanese course. The exam will consist of both written and spoken portions. Although it is her first course in Japanese, Savannah is confident that she will do very well on the exam.

A. Describe how each of the following relates to Savannah's successful learning and performance.

- Broca's area
- Use of phonemes
- Modeling
- Chunking

B. Describe how each of the following may hinder Savannah as she prepares for and takes the exam.

- Encoding failure
- Age and language acquisition

C. After the exam, Savannah tells her family and friends that she believes that she spoke fluently and did extremely well on the exam. Describe how each of the following concepts may have influenced her opinion.

- Self-efficacy
- Confirmation bias

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 sufficiently accurate for the reader to be convinced of the word intended.
2. Within a point, students will not be penalized for misinformation unless it directly contradicts or obscures correct information that would otherwise have scored the point.
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 before a point can be earned. Terms such as "She," "Her," "Savannah," or "the test" are all sufficient to establish context. However, it is also possible to infer context from the order of the essay, if it is consistent with the order of the question.
4. Definitions without application are not sufficient to score points. A definition may contribute to the answer, but students must also provide a specific application related to some aspect of the question, independent of the definition — for example, score: "Encoding failure happens when information is not put into memory. If information is not encoded, it cannot be recalled for the test" (correct definition supports specific application).
5. Because definitions alone do not earn credit, if students provide 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 provided scenario.
7. In part A students may address either Savannah's successful learning of Japanese **OR** her performance for each point. In part B students may address either how she prepares for **OR** takes the exam for each point.
8. The examples provided in the following scoring guidelines for each point are not to be considered exhaustive.

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Question 2 (continued)

Point 1: Broca's area

To earn this point, students must accurately describe how Broca's area relates to Savannah's successful learning or performance. They may describe:

- A. Speech production (e.g., speaking, writing, clear pronunciation, grammatically correct statements, appropriate pacing, generation of motor responses that move the facial muscles that are necessary for speech), **OR**
- B. Speech/language comprehension, **OR**
- C. Mirror neurons.

Example: "Broca's area is responsible for helping her speak Japanese."

Do not score

- General references to "language" or "learning" alone.
Example: "Broca's area helps Savannah learn Japanese."

Point 2: Use of phonemes

To earn this point students must accurately describe how the use of phonemes relates to Savannah's successful learning or performance. They may describe:

- A. Production or recall of Japanese sounds (e.g., smallest unit of sound), **OR**
- B. Combining sounds to create Japanese words, **OR**
- C. Recognition of correct and incorrect Japanese sounds.

Example: "Savannah will have to combine sounds to make different Japanese words."

Do not score

- Descriptions of morphemes (units of meaning).
- The term "phonemes" alone in place of "sounds."

Point 3: Modeling

To earn this point students must accurately describe how modeling relates to Savannah's successful learning or performance. In describing modeling, they may score this point by:

- A. Demonstrating Savannah's imitation/copying/repetition of a model,
Example: "Savannah imitated how her teacher said Japanese words," **OR**
- B. Explaining that the teacher or other students act as a behavioral model,
Example: "The teacher demonstrated how to speak Japanese."

Do not score

- The term "modeling" alone in place of "imitating" or "copying."
- The term "modeling" alone in place of "demonstrating" or "showing."

Point 4: Chunking

To earn this point students must accurately describe how chunking relates to Savannah's successful learning or performance. They may describe:

- A. Learning or recall of language by grouping/combining material (e.g., the use of a specific strategy, such as an acronym), **OR**
- B. The resulting increase in the amount of information that can be held in short-term memory.
Example: "To remember the Japanese words better, Savannah could group all of the words that start with the same sound."

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Question 2 (continued)

Do not score

- The term “chunking” alone in place of “grouping” or “combining.”
- The phrase “breaking information into smaller pieces.” This does not score because chunking involves grouping. However, if students discuss breaking down a large amount of information into smaller, more manageable groups, it will score.

Point 5: Encoding failure

To earn this point students must accurately describe how encoding failure may hinder Savannah’s exam preparation or test performance. They may explain:

- A. The failure to process/put the information into memory, **OR**
- B. That information not attended to will not be processed, **OR**
- C. That shallow processing leads to more forgetting.

Example: “Savannah never put the words into memory in the first place.”

Do not score

- The term “encoding” alone in place of the phrase “put the information into memory.”
- Encoding failure as occurring when information is not “encoded correctly” and leads to “recall of incorrect information.”

Point 6: Age and language acquisition

To earn this point students must accurately describe how Savannah’s age might hinder her language acquisition while preparing for or taking the exam. They may explain that:

- A. Older students are less successful in acquiring a language, **OR**
- B. The critical/sensitive period for language acquisition has passed, **OR**
- C. Older students are more likely to speak a second language with the accent of their first-learned language.

Example: “Savannah will have a harder time learning Japanese because she has passed the critical period.”

Do not score

- Responses that focus on the memory of vocabulary as negatively influenced by age. The focus must remain on language acquisition.

Point 7: Self-efficacy

To earn this point students must accurately describe how self-efficacy may have influenced Savannah’s positive opinion of her test performance. They may describe Savannah’s:

- A. Personal belief, or expectancy, that she can perform a behavior or task (demonstrates a potential), **OR**
- B. Personal belief, or expectancy, about her ability (demonstrates a potential).

Example: “Savannah believed she could do well on the test.”

Do not score

- Perceptions of past behavior alone.
Example: “Savannah thought she did well on the test.”
- *Self-esteem* (perceptions of overall worth) or *self-serving bias* (taking credit for success because of positive internal attributions while ignoring failures that result from external forces).

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Question 2 (continued)

Point 8: Confirmation bias

To earn this point students must accurately describe how confirmation bias may have influenced Savannah's positive opinion of her test performance. They may explain that Savannah is:

- A. Selectively attending to information that supports her preconceived beliefs, **OR**
- B. Minimizing contradictory evidence, **OR**
- C. Selectively recalling information to support her existing beliefs.

Example: "Savannah may only remember the questions she did well on."

In her study of Japanese, Savannah uses a portion of her brain called the Brock's area in order to visualize the words and communicate in Japanese. Without a functional Brock's area, she would not be able to do well on the spoken portion of the examination. Savannah probably began her studies by becoming familiar with the phonemes of Japanese, or the smallest unit of speech. For example, in the English word "chat," the phonemes include "ch," "a," and "t." Understanding how to pronounce individual phonemes and ~~of~~ combine them into words is integral to learning a new language. Savannah's modeling of her ~~pro~~ Japanese professor's pronunciations/intonations allows her to learn Japanese more quickly through observation and imitation. ~~Chunking~~ chunking refers to a mnemonic device and natural tendency for humans to cluster objects (or in Savannah's case, words) into meaningful units. For example, since Japanese is presumably based on pictorial representations of words, Savannah might ~~have~~ use chunking to learn new characters in sets (seasons, places, etc.).

However, Savannah still might not perform well on the exam due to encoding failure, which refers to when the new information is not properly encoded or stored into long term memory for later retrieval. For example, if Savannah does not study a particular unit as thoroughly as the others, she may forget how to say something in Japanese on the exam not because she has never seen it before, but because it failed to encode and she forgot it. Also, since Savannah is a junior in high school, a relatively late stage to be learning an entirely different foreign language like Japanese, her age may hinder her ability for language acquisition. Typically, language is most rapidly absorbed at very young ages, and as one grows older, it becomes increasingly more difficult to learn languages.

After the exam, self-efficacy may inflate Savannah's feelings on how well she did on her examination. She may feel overconfident in her own abilities. Also, confirmation bias, the tendency only to pay heed to evidence that confirms one's opinions, may lead her to believe that she did better than she actually did. Savannah may only remember the instances in which she immediately knew the answer and felt very proud and confident for having done so, while neglecting the instances in which she was unsure about her responses.

A. IF Savannah's Broca's area is working properly, her performance in the spoken portions should be good. IF Savannah ~~was~~ was successful in learning her Japanese phonemes, that is the basic units that make up sounds in the Japanese language, her performance in the spoken portions will be even better. IF Savannah is able to use modeling, which is understanding the patterns that the Japanese language is written with, her performance in the written portion will be good. IF Savannah is able to apply chunking, which is the ability to group things together in order to remember more efficiently (in her case, chunking will be most useful in remembering which symbols of the Japanese language go together to make specific words), her performance in the written ~~portion~~ section should be even better.

B. IF encoding failure happens to Savannah, the information she studied for her Japanese exam will not have been processed in her ~~memory~~ long term memory. Thus, encoding failure will hinder her exam grade.

C. By telling her family and friends that she thinks she did well on the exam, she has confirmed her belief that she performed well. This is called the confirmation bias. Self-efficacy refers to the tendency that one ~~thinks~~ thinks they did better than they actually did. Self-efficacy may have also influenced her opinion about her grade.

A. Broca's Area - area in the brain for acquiring language

Phonemes - are the smallest part of language. Savannah will have to break down the Japanese language into phonemes to help her understand it.

Modeling - using an example to use to copy or base ourself off of. Savannah may have listened to tapes of Japanese speakers so she can base her pronunciation of the speaker on the tape.

Chunking - is breaking up material into parts or chunks so that it is easier to study. Savannah can use chunking to break up the material she needs to study for the test to make it easier.

B Encoding failure - is When material that is being encoded into memory is encoded wrong or mis encoded. Savannah may have an encoding failure when she mixes up the meanings of 2 words while studying.

Age and Language Acquisition - Says that we must learn language at an early age. As we age it is harder and harder for us to learn language. Because Savannah is a Junior she will have a more difficult time learning Japanese than if she was younger.

2 C

Write in the box the number of the question you are answering
on this page as it is designated in the exam.

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C. Self efficacy - is believing of ourselves

More highly than we actually are. Savannah may
not have done as well on the test as she
believes,

Confirmation bias - Finding things that support
our ~~beliefs~~ beliefs. Savannah has told her
friends and family that she did well, and they
agree and say I bet you did very well on the exam.
This makes Savannah confirm her belief that she
did well.

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2011 SCORING COMMENTARY

Question 2

Overview

This question required students to apply psychological concepts to a scenario describing how a high school student, Savannah, is learning Japanese. Savannah is preparing for an exam that requires written and spoken responses in Japanese. Students were asked to describe how certain aspects of language, learning, and cognition impact Savannah's abilities and perceptions. In part A they were required to describe how each of the following relates to Savannah's success in learning or performance: Broca's area, the use of phonemes, modeling, and chunking. Part B assessed students' understanding of the role of encoding and age in language acquisition, and part C evaluated their ability to apply the concepts of self-efficacy and confirmation bias.

Sample: 2AA **Score: 7**

This essay earned point 1 when the student explains how Broca's area plays a role in performance on the spoken portion of the exam. Point 2 was awarded when the student explains that individual phonemes, when combined, create words. The essay received point 3 when the student describes the Japanese professor's actions ("pronunciations [*sic*]/intonations") and imitation of those behaviors. Point 4 was earned when the student explains chunking as "cluster[ing] objects (or in Savannah's case, words) into meaningful [*sic*] units." Point 5 was granted when the student explains that a failure to process the information into memory will result in an encoding failure. The student explains that the best time to learn a new language is "at very young ages" and thus earned point 6. No credit was received for point 7 because the student refers to past behavior ("how well she did on her examination"). Point 8 was merited only when the student explains confirmation bias as the tendency to attend to evidence to confirm an opinion and links it to the scenario provided in the question.

Sample: 2BB **Score: 4**

Point 1 was awarded when the student links Broca's area to Savannah's ability to perform on the spoken portions of the exam. The essay gained point 2 when the student describes phonemes as the "basic units" of sound that make up the Japanese language. No credit was granted for point 3 because the student does not explain modeling, which is learning by observation. Point 4 was merited because the student describes chunking as "the ability to group things" for learning and links chunking to "remembering which symbols of the Japanese language go together to make specific words." The essay earned point 5 when the student explains that an encoding failure occurs if information is never processed into long-term memory. Point 6 is not attempted. The student explains that "[s]elf-efficacy may have ... influenced her [Savannah's] opinion about her grade" but does not correctly explain self-efficacy as a personal belief about one's ability, so point 7 was not awarded. Although the student explains that confirmation bias involves a belief, the explanation does not include information about selectively attending to confirming information, so the essay did not receive point 8.

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Question 2 (continued)

Sample: 2CC

Score: 2

Although the student correctly relates Broca's area to speech, point 1 was not earned because the student does not apply the information to the scenario. Similarly, phonemes are identified as "the smallest part of language," but point 2 was not received because the student does not explain how phonemes relate to sounds in Japanese. Point 3 was awarded when the student explains how Savannah might learn Japanese by listening to tapes of a speaker and then imitating the pronunciation. The student explains that material can be broken down into parts, yet no credit was granted for point 4 because the student does not explain chunking as the grouping of content. The essay did not merit point 5 because the student describes encoding failure as incorrect encoding rather than a failure to process information into memory. Point 6 was earned when the student explains, "Because Savannah is a Junior she will have a more difficult time learning Japanese then [*sic*] if she was younger." Point 7 was not awarded because the student describes self-esteem rather than self-efficacy. The essay did not gain point 8 because the student does not describe some form of evidence that is used to confirm a belief.