



## **AP<sup>®</sup> Psychology 2006 Scoring Guidelines**

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**Question 1**

Psychologists use a variety of research methods to study behavior. Three of the main research methods used are

- Case study
- Correlational study, and
- Experiment.

- A. Discuss one advantage of each research method listed above.
- B. Discuss one disadvantage of each research methods listed above.

Pretend you are a psychologist who will use each of the three research methods—case study, correlational study, and experiment—to determine the effect of taking vitamin J on improving memory.

- C. For each method listed above, explain a key characteristic of the basic approach you could use to reach a scientific conclusion about the relationship between taking vitamin J and improving memory. You need not design a complete study.

**General Issues**

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. Within a point, a student will not be penalized for misinformation unless it *directly contradicts* correct information that would otherwise have scored a point.
3. A student can only score points if the information is presented in the *context* of the question. For example, it must be clear to the reader that the student is discussing an advantage of case studies to score Point 1, or a key characteristic of a correlational study to score Point 8. The best way for a student to establish context is to explicitly state it (for example, "A disadvantage of experiments is..."). In the absence of such language, the reader may infer context if the paragraph structure or order of the answers makes the context clear. A student may embed an advantage or disadvantage within a definition.
4. Lists of subpoints throughout these scoring guidelines represent typical responses of students, but they are not exhaustive. There may be other ways to earn a point.
5. Advantages and disadvantages (Point 1 through Point 6) do not need to be *exclusively true* or *always true* for a method.
6. The student must establish the context of both vitamin J and its effects to score the key characteristics (Point 7, Point 8, and Point 9).
7. The point order represents the most common way students answered the question. Several other organizational strategies are possible. They all should be scored.

**POINT 1: Case Study Advantages**

Typical advantages of case studies include:

- a. They provide in-depth, detailed information about the *case, person, or functional unit of persons* (family, organization, etc.) being studied.
- b. They provide an opportunity to study unusual cases.
- c. An argument related to *time or money issues, biasing factors, ethical considerations, stimulating future research, or an application to an applied setting* if the student explains it as a reasonable advantage of case studies (for example, "Studying a preexisting case may avoid ethical problems.").

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**Question 1 (continued)**

NOTE: Do not score the point if the study is of a *topic of information* (for example, schizophrenia) rather than a person or a unit of persons.

**POINT 2: Case Study Disadvantages**

Typical disadvantages of case studies include:

- a. Their results cannot be generalized (specific term not required).
- b. They are prone to inaccurate reporting from whatever source the data are gathered.
- c. They cannot be used to establish cause-and-effect relationships.
- d. An argument related to *time* or *money issues*, *biasing factors*, or *ethical considerations* if the student explains it as a reasonable disadvantage of case studies (for example, “The researcher’s conclusions may be biased by his or her feelings about a person being studied.”).

**POINT 3: Correlation Advantages**

Typical advantages of correlational studies include:

- a. They examine, test, reveal, compare, or describe a relationship between two variables. Do not score if the student only indicates *cause-and-effect relationships*.
- b. They can be efficient, allow the researcher to collect lots of data, or save time and money.
- c. They provide a way to make predictions about the variables.
- d. They can be used to dispel illusory correlations.
- e. They can utilize preexisting or archival data (accept “Participants may not be needed.”).
- f. An argument related to *biasing factors*, *ethical considerations*, *stimulating future research*, or *an application to an applied setting* if the student explains it as a reasonable advantage of correlational studies.

**POINT 4: Correlation Disadvantages**

Typical disadvantages of correlational studies include:

- a. They cannot be used to establish cause-and-effect relationships or the direction of causal influence.
- b. They are prone to inaccurate reporting (for example, on surveys).
- c. They make it hard to assess the impact of additional variables. Accept any word (for example, intervening, confounding, lurking, third) that conveys the idea of an additional variable.
- d. They do not allow for the active manipulation of variables.
- e. An argument related to *time* or *money issues*, *biasing factors*, or *ethical considerations* if the student explains it as a reasonable disadvantage of correlational studies.

**POINT 5: Experiment Advantages**

Typical advantages of experiments include:

- a. They may establish cause-and-effect relationships.
- b. They emphasize the operationalization of variables, or the active manipulation of the IV (accept “variables”), or the accurate measurement of the DV, or the use of groups to facilitate comparison.
- c. They stress the control of variables or the random assignment of participants to group. Do not score the point if the student wrongly identifies *random assignment* as *random selection* or *random sampling*.
- d. They allow for implementation of double-blind or blind procedures.
- e. They have high internal validity, or increased confidence that the IV influences the DV.
- f. They allow the researcher to distinguish between placebo and real effects.
- g. They may be replicated.

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**Question 1 (continued)**

- h. An argument related to *biasing factors, ethical considerations, stimulating future research, or an application to an applied setting* if the student explains it as a reasonable advantage of experiments.

**POINT 6: Experiment Disadvantages**

Typical disadvantages of experiments include:

- a. They reduce external validity (accept the idea that experiments may be artificial or contrived).
- b. It may be difficult to establish adequate control conditions or eliminate confounding variables (specific term not required).
- c. There is a statistical possibility of bias despite the use of appropriate procedures (for example, "Groups may differ in significant ways despite random assignment.").
- d. An argument related to *time or money issues, biasing factors, or ethical considerations* if the student explains it as a reasonable disadvantage of experiments.

NOTE: Do not score overly vague arguments like, "It's hard to recruit participants for experiments" or "Results can be confounded."

**POINT 7: Case Study Key Characteristics**

*The effect of vitamin J on memory* is explored with a study that emphasizes at least one of the following characteristics:

- a. A study of one person or functional unit (family, organization, etc.).
- b. An in-depth or intensive examination (using, for example, an interview, test, or observation) of records or information related to the person or unit being studied. Do not score if the in-depth or intensive examination is only in the context of a different research method.

NOTE: Single-subject designs are accepted as case studies when scoring this point.

**POINT 8: Correlation Key Characteristics**

*The effect of vitamin J on memory* is explored with a study that emphasizes at least one of the following characteristics:

- a. Discussion of the relationship or correlation between vitamin J and memory.
- b. An appropriate description of the collection of correlational data regarding both vitamin J and memory (for example, using surveys, archival data, naturalistic observation). Do not score if the only mention of data collection involves a manipulation of variables.
- c. Description of a scatterplot to show the relationship between vitamin J and memory. A correctly drawn sketch of a scatterplot can be used to support (but not replace) the student's written explanation.
- d. Measurement of vitamin J and memory without manipulation of vitamin J.

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**Question 1 (continued)**

**POINT 9: Experiment Key Characteristics**

*The effect of vitamin J on memory* is explored with a study that emphasizes how at least one of the following characteristics could be employed:

- a. Administration of vitamin J or the manipulation of the vitamin J variable.
- b. *Random assignment* of participants to conditions. Do not accept random sampling as a synonym for random assignment.
- c. Establishment or use of vitamin J, control, or placebo control groups.
- d. Use of a double-blind or blind procedure.
- e. Use of other procedures that allow for a controlled comparison (for example, matching participants or equating environmental conditions for groups).

NOTE: Do not score a reference to the discovery of a cause-and-effect relationship unless the student links it to one of the above characteristics.

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**Question 2**

Zoey wants to buy a new car but is having difficulty deciding what kind to buy. She is feeling anxious and wants to make a decision soon. Zoey visits several local car dealers and asks for the advice of some of her friends. Explain how each of the following could influence her decision. Be sure to discuss each concept in the context of Zoey’s decision.

- Approach-avoidance conflict
- Central route to persuasion
- Heuristics
- Individualism
- Rationalization
- Self-efficacy
- The autonomic nervous system
- The foot-in-the-door phenomenon

**General Issues**

1. Each point must be an application of the construct.
2. Definitions alone do not score but may be used to support or enhance an answer.
3. The student cannot merely parrot the terms in the question in definitions or explanations (except that “to make a decision” can count as a legitimate outcome).
4. The application of the concepts must relate to the car-buying context.

NOTE: In general, applying the concepts to another person (car salesperson, parent, etc.) is acceptable as long as the application relates to Zoey’s decision.

**POINT 1: Approach-avoidance Conflict**

A conflict involved in Zoey’s decision-making process in which at least one goal object or process (e.g., one car, one dealership, or the car-buying process) has both attractive and unattractive aspects. Specific attributes must be named. For example, “Zoey wants a blue car but it is too expensive” would score, but “Zoey wants a car but it is too expensive” would not score. Attributes like color or type of car are being counted as attractive aspects.

NOTE: Do not score if the attractive aspects are characteristic of one object, and the unattractive aspects are characteristic of another (for example, the sports car was cool and the sedan was ugly).

TRAP: In the example “I want a new car” the word “new” does not indicate an attractive aspect unless it is used in combination with “old” or “used” car. Thus, in the example “I want a new car, not a used car” the word “new” does count as an attractive aspect.

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**Question 2 (continued)**

**POINT 2: Central Route to Persuasion**

The answer must include **one** of the following:

- a. Via Content: Zoey must consider or be presented with *factual* information about the car (or something else related to the car-buying process, like the dealership, etc.) intended to affect Zoey's decision rather than examples of peripheral route.
- Examples of factual information (quality of car, car ratings, safety).
  - Examples of peripheral route (emotional appeals, attractiveness/expertness of the source, color, coolness).

NOTE: The answer does not have to include any reference to the peripheral route.

OR

- b. Via Process: Zoey considers information deeply vs. superficially (score this as long as it is in the context of the car-buying decision).

NOTE: Do not score general persuasion (the car salesperson tries to persuade Zoey).

**POINT 3: Heuristics**

The answer must include **both** of the following:

- a. A description of a “rule of thumb” or “mental shortcut” or preference.
- b. How the heuristic affects the decision-making process (for example, it narrows the choices, enhances the likelihood of getting what she wants).

Examples:

“Zoey likes/wants a red car, so Zoey only looks at red cars.” This scores.

“Zoey likes/wants a red car, so Zoey buys a red car.” This does not score.

“Zoey likes/wants a red car.” This does not score.

**POINT 4: Individualism**

The answer must include **both** of the following:

- a. Reflection of an individual goal or independent self construal (defining one's identity in terms of personal attributes rather than group memberships).
- b. Identification that a group (for example, family, friends, The Others, everyone else) has contrasting desires, needs, opinions, goals, or cars.

NOTE: Conformity examples score only if they:

1. State this as the inverse of individualism, **and**
2. Reflect the tension between the individual and the group.

Examples:

“Zoey's friends want her to get a Toyota, so she does.” This does not score.

“Zoey is not exhibiting individualism. Zoey wants a Cooper Mini, but her friends want her to get a Toyota. She decides to ignore her own feelings and gets a Toyota.” This scores.

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**Question 2 (continued)**

**Point 5: Rationalization**

A decision must be justified with some excuse to oneself that is described as a defense mechanism, or that exhibits some level of self-protection or self-deception.

NOTE: "...justifies to herself..." or "...convinces herself..." is enough to indicate self-deception.

NOTE: Do not score being rational, using logic to make a decision.

**Point 6: Self-efficacy**

Answer must include **all** of the following:

- a. Belief about own ability (or inability).
- b. In a specific task related to the context.
- c. How this affects Zoey's decision making.

NOTE: Do not score anything about Zoey's wants/desires; Zoey being "efficient"; self-esteem; internal locus of control, general confidence.

**Point 7: Autonomic Nervous System (ANS)**

Answer must include **both** of the following:

- a. Connection must be made between ANS (or the sympathetic or parasympathetic nervous system) and anxiety, or calmness, changing levels of arousal, or "fight or flight."
- b. Must indicate how this affects the decision she makes.

NOTE: The ANS must affect the decision; the decision cannot affect the ANS.

**Point 8: Foot-in-the-door Phenomenon**

Answer must include **all** of the following:

- a. A request is made of an individual.
- b. That individual complies with or agrees to that request.
- c. A larger request is made to the same individual.
- d. Must relate to Zoey's decision.

NOTE: Do not score giving in to persuasion, simply making multiple requests, door-in-the-face, perceptual contrast, mere exposure, desensitization, "that's not all," one step followed by another step.