

Question 2: Research Design**7 points****General Considerations**

1. Answers must be cogent enough for the meaning to come through. Spelling and grammatical mistakes do not reduce a score, but spelling must be close enough so that the reader is convinced of the word.
2. A response 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, but a clear definition can support the application.
4. Examples provided in the Scoring Guidelines for each of the points are not to be considered exhaustive.
5. Within a point, a response will not be penalized for incorrect information unless it *directly contradicts* correct information that would have otherwise earned a point. For example, if a response applies a concept in two contradictory ways (such as identifying both the independent and dependent variables as the independent variable or describing proactive interference as interference from both older and newer information), the point is not earned.

NOTE: In certain cases, a response will not score if it includes a correct answer among multiple incorrect answers related to the same general concept/theory (e.g., a response that describes the Big Five trait of conscientiousness as being diligent, trusting, highly emotional, outgoing, and intellectually curious).

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.

Michael is the regional manager for a car company and needs to give a presentation to the president of the company about how different management styles might relate to the total number of sales of the company's new electric car. He hires an industrial/organizational psychologist to study three stores, each in a different city. Each store's manager has their own distinct management style:

- In Store A, the manager has a supportive style (open and warm).
- In Store B, the manager has a strict style (rigid and severe).
- In Store C, the manager, who is Michael's good friend, has a distant style (permissive and disengaged).

The number of electric cars sold at each store over a five-month period is shown in the table.

	ELECTRIC CARS SOLD BY STORE		
Month	Store A (supportive style)	Store B (strict style)	Store C (distant style)
January	9	7	3
February	7	8	2
March	9	5	5
April	5	3	4

Explain why this study is not a true experiment.**1 point**

Response must indicate that this study is not an experiment because the researcher did NOT use random assignment.

OR

Response must indicate that the study did not include the manipulation of a variable.

Acceptable explanations include:

- *The study is not a true experiment because the psychologist did not randomly assign participants to his groups.*
- *The study used stores that already existed instead of manipulating an independent variable.*
- *The independent variable was not manipulated by the researcher in this study.*

Unacceptable explanations include:

- *Michael didn't use random selection, so his study is not an experiment.*

Identify the implied dependent variable for the study if the study had been a true experiment.**1 point**

Response must indicate that the number of cars sold would be the dependent variable.

Acceptable explanations include:

- *The DV would be the number of cars bought by customers.*
- *The DV is cars sold.*
- *The DV is sales.*

Unacceptable explanations include:

- *The DV would be the stores.*
- *The DV is cars.*
- *The DV is leadership style.*

Calculate the mean of Store B's sales.**1 point**

Response must indicate that the mean for Store B is 5.

Acceptable explanations include:

- *The mean is five.*

Unacceptable explanations include:

Responses that indicate any other number than 5 or other representation of the number five that is not English/Arabic numerals.

- *The mean is 12.*

Explain why the location of the store is a confounding variable in this study.

1 point

Response must indicate that the location of the store is affecting the dependent variable in some specified way.

Acceptable explanations include:

- *Each management style was also in a different city, and people in each city may have different tastes in items and will purchase things differently.*
- *Cities with more people would most likely sell more units.*
- *Store A is in a higher-income area, so more cars are sold there.*

Unacceptable explanations include:

- *The location of the stores was confounding because some people couldn't go to all the stores.*
 - *There may not be charging stations in some parts of the city where Store B is located.*
-

Explain how the halo effect could influence Michael's interpretation of the findings.

1 point

Response must indicate that Michael's previous positive perception of Store C's manager will cause him to think more positively toward Store C's sales data than he otherwise would.

Acceptable explanations include:

- *Michael's good feeling about the manager at Store C will make him think the data for that store are wrong.*
- *Michael is good friends with the manager of Store C, so that causes him to make a positive evaluation of the store's performance.*

Unacceptable explanations include:

- *Michael views the manager positively, but the data lead him to think he may have chosen a bad manager.*
-

Explain why the hiring of an industrial/organizational psychologist was appropriate for this study.

1 point

Response must indicate that I/O psychologists are interested in optimizing or improving performance **OR** solving problems in the workplace.

Acceptable explanations include:

- *This study is about which management style leads to the most sales, so an I/O psychologist would be best to help solve this problem.*
- *Michael wants to identify ways to improve managers' performance, and an I/O psychologist can help him with this goal.*

Unacceptable explanations include:

- *I/O psychologists study the workplace.*
-

Explain how Michael could use positive reinforcement to help him finish his presentation by the deadline. 1 point

Response must indicate Michael could reward himself with something that he likes each time he works on his presentation to make it more likely that he will keep working.

Acceptable explanations include:

- *Michael treats himself to a small piece of candy after he works for 20 minutes to encourage himself to keep working.*

Unacceptable explanations include:

- *Michael is positive with himself about finishing the report on time.*
- *Michael treats himself to candy after working on his presentation.*
- *Michael eats a piece of candy and then begins to work on his presentation.*

Total for question 2 7 points