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VIDEO GUIDE · UNIT 0 · TOPIC 0.3

P-Values and Effect Sizes

Watch the lesson

Name _____ Class _____ Date _____

NOTES: FILL IN THE BLANKS WHILE YOU WATCH

Is it just luck?

1. A _____ is the probability that luck alone would produce a gap between groups at least as big as the one found.
2. A small _____, a small gap, or lots of _____ within groups make the p-value higher.
3. A p-value of .05 or less (1 in 20) makes a result _____; with a very large sample, even a tiny gap can be _____.

How big, and for whom?

4. _____ measures how big an effect actually is: 0.2 or below is small, 0.3–0.7 medium, 0.8 or greater large.
5. _____ describe only the people tested, such as the gap between two groups.
6. _____, like the p-value, help researchers infer whether a result applies to the larger population.

CHECK YOUR UNDERSTANDING

1. A study of 12 participants finds that a meditation group scored 3 points calmer than a control group, p = .20. Which conclusion is best supported?

(A) The result is statistically significant

(B) Meditation has a large effect on calmness

(C) The gap could easily be due to luck, so it is not statistically significant

(D) The study proves meditation has no effect on calmness

2. If the gap between groups stays the same, which change would most likely lower a study's p-value?

(A) Testing fewer participants

(B) Testing many more participants

(C) Having more variability within each group

(D) Using a cutoff of .01 instead of .05

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3. A researcher reports that the 50 students who used a study app scored 8 points higher than the 50 who didn't. The 8-point gap is best described as a(n):

(A) inferential statistic

(B) p-value

(C) effect size benchmark

(D) descriptive statistic

NOTES

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