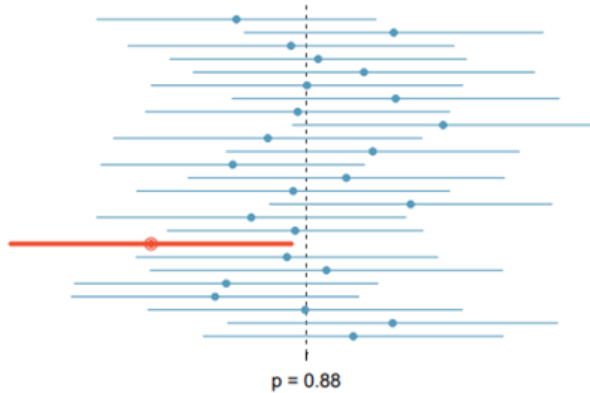Learning Guide Unit 1

Discussion Assignment

Look at the below graph and answer the questions:

p = 0.88

1. The graph shows the simulation of 25 intervals from 25 samples proportions with a 95% confidence level. One interval missed the population parameter (p=0.88)

    a) What is the formula for the confidence interval for a sample proportion?

    b) What parameters of the formula above can you modify to ensure that the confidence interval captures the population parameter?

2. List the conditions necessary for the CLT to hold. Make sure to list alternative conditions for when we know the population distribution is normal vs. when we do not know what the population distribution is; and then when the sample size is barely over 30 vs. when it's very large.

3. Explain in your own words, the difference between standard error and margin of error.

Your Discussion should be a minimum of 200 words in length and not more than 500 words. Please include a word count. Following the APA standard, use references and in-text citations for the textbook and any other sources.

    Note: Always prioritize using JASP to retrieve values, as it will be a key tool for the final exam.

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