

PSY 10 - Analysis of Psychological Data

Quiz # 09

Professor Depaoli

4/11/2017

Red Scantron Instructions

1. Use pencil to fill out your Scantron.
2. Bubble your name and ID number on front.
3. Do NOT put a zero before your ID number.
4. Use the same ID number as the first quiz (no extra zero).
5. Use the same name as the first quiz.
6. Make heavy, **dark** marks that fill the circle **completely** and **precisely**.
7. If you need to correct any answer, make sure you erase the original one **completely**.

A sample of difference scores from a repeated-measures experiment has a mean of $M_D = 8$ with $s_D^2 = 100$. Using a two-tailed test and a .05 level of significance, answer the following (2 points each):

1. If the sample size is $n = 4$, what decision should we make?

- (a) Accept H_0 (b) Fail to reject H_0
 (c) Reject H_0 (d) Reject H_1

$$t_{obt} = \frac{M_D - \mu_D}{S_{MD}}$$

2. If the sample size is $n = 16$, what decision should we make?

- (a) Accept H_0 (b) Fail to reject H_0
 (c) Reject H_0 (d) Reject H_1

$$S_{MD} = \sqrt{\frac{s_D^2}{n_D}}$$

3. How does increasing the size of the sample influence the likelihood of finding a significant mean difference?

- (a) Increases (b) Decreases
 (c) No influence on the likelihood of significance

$$df = n_D - 1$$

4. What is Cohen's d ?

- (a) 3.20 (b) 1.60
 (c) 0.80 (d) 0.08

$$d = \frac{M_D}{s_D}$$

5. What is ω^2 when $n = 25$?

- (a) 0.375 (b) 0.469
 (c) 0.536 (d) 0.750

$$\omega^2 = \frac{t^2 - 1}{t^2 + df}$$

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