

related samples t-tests

1. A cross-cultural psychologist wants to know if providing counseling to Hmong refugees will help increase their self-esteem. Twelve refugees are tested on a measure of self-esteem before counseling is provided, and again after the counseling. The raw data is below:

esteem before	esteem after
10	14
16	12
20	17
13	18
15	21
16	26
12	19
14	12
15	19
13	21
14	13
15	19

Determine if self esteem significantly increases, use $\alpha = .05$. What is the effect size? Please calculate a 95% confidence interval.

2. Johnson is interested in studying whether people rate their attraction to a speaker to be higher the second time they hear the speaker. Eight subjects listed to a speaker and rated their attraction to the speaker on a 1-15 scale. These same 8 subjects listened to the same speaker a second time, and again rated their attraction to the speaker on a 1-15 scale. Do multiple exposures to a speaker increase perceived attraction to that speaker? Test at $\alpha = .05$. What is the effect size? Please calculate a 95% confidence interval.

perceived attraction

Time 1	Time 2
7	9
10	6
5	5
12	14
8	5
3	7
9	6
5	2

3. David and Emalee want to know whether graduate students become more distressed after having a meeting with Bryan Myers. Nine students rated distress on a 1-9 scale before and after each had a meeting with Bryan. Are students more distressed after the meetings? Test at $\alpha = .05$. Please determine the effect size? Please calculate the 90% confidence interval.

Before Meeting

4
5
3
4
3
4
5
6
4

After Meeting

7
6
8
5
9
8
5
7
9