

6060 Quiz 3: RMarkdown

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1 Question 1

The comparison for the correlation between A1 and C1 versus E1 and O1 was $\Delta r = -.01$, 95% CI $[-.11, .09]$, $N = 759$. The confidence interval is very wide, which suggests the difference between the two correlations (A1-C1 vs. E1-O1) to be a weak and negative relationship, a weak and positive relationship, or it can also suggest no difference between the correlations because the confidence interval captures the value 0.

2 Question 2

The comparison for the correlation between A1 and C1 versus A1 and E1 was $\Delta r = -.08$, 95% CI $[-.18, .02]$, $N = 764$. The confidence interval is very wide, which suggests the difference between the two correlations (A1-C1 vs. A1-E1) to be a medium and negative relationship, a very weak and positive relationship, or it can also suggest no difference between the correlations because the confidence interval captures the value 0.

3 Question 3

The comparison for the correlation between A1 and E1 for men versus women was $\Delta r = .02$, 95% CI $[-.13, .17]$, with N for men = 251 and N for women = 518. The confidence interval is very wide, which suggests the difference between the two correlations for the two groups (men vs. women) to be a medium and negative relationship, a medium and positive relationship, or it can also suggest no difference between the correlations because the confidence interval captures the value 0.

4 Question 4

The comparison for the correlation between ratings and raises versus raises and critical was $\Delta r = .43$, 95% CI $[.07, .97]$, $N = 30$. The confidence interval is very wide, which suggests the difference between the two correlations (ratings-raises vs. raises-critical) to be a very weak and positive relationship or a very strong and positive relationship.

5 Question 5

The comparison for the correlation between ratings and raises versus complaints and critical was $\Delta r = .4$, 95% CI $[.01, .78]$, $N = 30$. The confidence interval is very wide, which suggests the difference between the two correlations (ratings-raises vs. complaints-critical) to be a very weak and positive relationship or a very strong and positive relationship.

6 Question 6

A comparison between the original rating-raises correlation ($r = .59$) and the replication study's rating-raises correlation ($r = .03$) found a difference between the two correlations such that $\Delta r = .56$, 95% CI $[.26, .76]$. This suggests that these correlations did not result from the same sample population.

7 Question 7

Based on the two studies described in question 6, it appears as though there is a weak, positive relationship between rating and raises. The replication study had a much larger sample size and produced an r value of .03, so this value is likely to be more representative of the actual population correlation than the r value extracted in the original study which had a small sample size (and large confidence interval around the r value).