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Psych Lab
Project 6

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Chapter 10 odd

1.) The null hypothesis would be the people's ratings of trust to strangers if they were exposed or not to the oxytocin.
The alternative hypothesis would be people who are exposed to oxytocin will give a higher rating of trust towards strangers compared to those who aren't exposed.

2.)
3.) Type 1 error is when you believe that there is an effect in the population, when there isn't.
Type 2 error is when you believe that there is no effect in the population when, really there is.
4.)
5.) The significance of a test statistic is directly linked to the sample size meaning that the same effect will have different p-values in different-sized samples. Small differences can be considered to be important in large samples, and large effects might be considered not as important in small samples.
6.)
7.) Null hypothesis: Album sales are identical regardless of whether or not you give away a free gift.
Alternative hypothesis: More albums are sold when accompanied by a free gift.
I would use a one-tailed test to evaluate the hypothesis, it wouldn't matter because you could say if you did so by not giving a gift as well, meaning it be the same if a result like that happened.
8.)
9.) Experiment-wise error rate = $1-0.95^n$
$= 1-0.95^{15}$
$= 1-0.46 = 0.54$
So basically, 54% of a Type 1 error compared to 5% when only one test done.
If you used the Bonferroni correction. It would use the 15 tests and would accept the result to be important or significant if below the 0.05, and below 0.05/15 = 0.003. If we use that, then the Type 1 error is below 0.05 and the p-value is the 0.003 for the threshold for significance to correct the current error rate.
10.)