**Interpret Spearman's rho**

Let’s have a look at our Spearman’s rho correlation results. You’ll notice across the diagonals that we have ones, and that’s because the variables are correlated with itself such as age groups with age groups will always be perfectly positively correlated so we never report these numbers across the diagonal. Across the other diagonal, you’ll notice that this is the same information, so we’re just going to report the results from one of these boxes. Now the first number is the correlation coefficient. Specifically this is the Spearman’s rho correlation coefficient, and its .254. Now this number, just like with Pearson’s r, ranges between -1 and +1, minus being a negative correlation and plus being a positive correlation. Now I recommend that you use your lecture notes or the recommended statistics textbooks for your course to determine the strength of this relationship. I’m just going to show you what I use and this is a table taken from a statistics textbook. This just gives you a rough guide to determine what we consider to be strong, moderate, weak or no relationship at all. You can notice that you can have positive and strong, negative and strong, and the same thing with moderate and weak. Now our value was positive and if we have a look again, .254, we can see that falls within the weak category, so we have a weak positive relationship between age groups and total competency.

The second statistic is our p-value and its’ labelled as ‘sig’ in SPSS. Now this value gives us an indication whether our results JUST happened by chance in our sample or whether or not a relationship truly exists in the population. And we need to compare this value to our alpha value. My alpha value is .05, but your alpha value may be .01. Make sure to compare it to the one you’re using. Now if our p-value is less than .05, it means that there’s enough evidence to reject H0, and accept our alternate hypothesis, H1. My alternate hypothesis is two-tailed, and it just says there will be a relationship, but I’m not saying it will be positive or negative, so in this case, it’s less than .05, so I would conclude that there is strong enough evidence to suggest a relationship does exist, even though its only weak, there is some relationship between age and competency. Lastly, if you remember, we ticked the option to flag significant correlations and you’ll see here that there’s a asterisks next to our correlation coefficient and that is just SPSS telling us that our sig value is significant at .05, which you can see here at the bottom, so in other words, this value here is less than .05. If it was also less than .01, there would be two asterisks here instead of 1.

END.