**Transcript: Conducting Paired Samples *t* tests in SPSS**

In this video, we're going to go through how to conduct a paired samples *t* test in SPSS. We've read in our data set here, which is the “Davis” data set containing self-reported and measured weight and height. We first need to double check the variable types to make sure that they're appropriate for the type of data that they contain. We can see that “weight” and “height” have been written as numeric variables, but self-reported weight [repwt] and height [repht] have been written as strings. We know that self-reported weight and height should be numeric because they’re numbers, so we need to change that. To do that, we will click on the three dots to the right of the word “String” and change it to “Numeric”. Once we've done this for both self-reported weight and height, we also need to change the measures to “Scale”. This is because weight and height are measured on continuous scales, weight in kilograms and height in centimeters. Now we have our data set all set up and we're ready to look at some descriptive statistics on the discrepancy between self-reported height and measured height.

To create our new height difference variable as we did in the R Commander video, we will navigate to “Transform” and “Compute Variable”. I'm going to label the target variable “height\_dif”, same as in R commander. To calculate this, we will use self-reported height minus measured height. This expression looks similar to what we saw in R Commander. Once we click “OK”, we'll see that we now have this variable called “height\_dif” that represents the discrepancy between self-reported and actual height.

In order to see descriptive statistics for this variable, we will navigate to “Analyze”, “Descriptive Statistics”, and “Descriptives”. The variable we want to look at is “height\_dif”. We will use this arrow to move it into the “Variables” field. Within the “Options” window we can select which descriptive statistics we want to see. We're mainly interested in mean and standard deviation, so we can leave those selected and unselect everything else. Once we click “Continue” and “OK”, SPSS will produce our descriptive statistics. We can see here the same values that we found in R Commander.

In order to conduct our paired samples *t* test, we'll navigate to “Analyze”, “Compare Means and Proportions”, and “Paired-Samples T Test”. In order to select which variable we want to compare to which other variable, we first need to select “Variable 1”. This is going to be self-reported height. Once we move self-reported height into the “Paired Variables” window, you will see that this cell is now highlighted in blue and we can select the variable that we want to compare it to. Once we move “height” into this this field we will see that we are comparing self-reported height to measured height. Next, we can click “OK” and SPSS will conduct our paired samples *t* test.

In the next video we will be going over how to interpret the results of this paired samples *t* test, as well as the output that we got from R Commander.