In this final video presentation, we are going to show you how to find the difference between the pre-test survey and the post-test survey data, including how to calculate percent change.

We previously calculated our averages including only the 12 youth who completed both a pre-test and a post-test survey.

You can calculate the difference by subtracting the average post-test (also referred to as “Time 2”) value from the pre-test (“Time 1”) value for each question.

The first thing you want to do is to make sure that you are pairing Time 1 and Time 2 values from the same questions. I’ve found that one way to do this is to utilize your SUM function again but instead of calculating a formula, you’re just using it to COPY the values in the cells for those first 10 questions for the post-test to directly below the pre-test questions. (I’m going to do this now and highlight those values in BLUE)

First I want to go ahead and label my rows of data – so I enter the word pre-test, spelling it correctly of course, in cell C15, and type post-test into cell C16.

I then place my cursor on the cell where you want the post-test value for “alcohol relaxes you” to go. Right here, and then I want to select SUM and then I move my cursor over using the scroll bar on the button and just hit my cursor on that cell and hit ENTER. You’ll see that the value here is 2 – that is the average score for alcohol relaxes you for the post test.

You can now copy and paste this formula into the adjacent columns – those are all of your post-test values for those questions.

Now, you want to find the difference between those two, so again, I indicate on my row what I am trying to find, difference, and then I’m going to place my cursor on cell (D18) and then use SUM, Select the value in D16, subtract it from D15 and hit enter. This is the difference between my pre-test and my post-test. I’m going to copy and paste the formulas across all the columns.

Now finally, I’m going to calculate my percent change. Again, I’m going to label my row, and then I’m going to place my cursor where I want the value to go (in this case it’s D20). Choose the SUM function. Then I’m going to select … it automatically selects your DIFFERENCE value … but you want to go ahead and be sure it is on difference. Then move to the formula bar, and place your cursor BEFORE the closing parenthesis, and enter the slash for the divide sign, and then select value in the pre-test value cell (D15) and now don’t hit enter yet. Now you want to move outside the parenthesis enter an asterisk (which signifies multiply sign) and then 1. Hit enter. The value returned is your percent change. Simply copy this over to the rest of your columns.