# Evaluation Lab ECHO session, Tuesday, August 18, 2020
24 participants

All the participants introduced themselves with their names, their organizations, and how they are associated with the Evaluation Lab.

Audrey introduced herself, she will be hosting the ECHO sessions while Charla is on leave for the next two or three months/sessions.

Charla gave a quick overview of how a typical ECHO session will go every month: typically, there will be 2 organizations that present something they are working on and receive feedback/answer questions, etc. Then there will be a didactic. Today there are no organizations sharing, just intros and then the didactic.

Charla also went over the upcoming ECHO session topics for September, October, and November. She will send updates about topics as we have them and she reminded everyone to check the website often.

Kevin hosted the didactic on Advanced Excel to perform TTests and Statistical Significance Calculations and other questions about Excel.

A TTest comes from inferential statistics, it is used to figure out if there is a significant difference between the means of two groups. Excel has the formulas for you. Without the tools of statistical inference wed be left guessing if differences were truly differences, the result of sample size of variance, etc. It is especially useful for evaluation. Kevin shared a table as an example of descriptive statistics on impact of student performance, and the small differences that may or may not be meaningful. Because of a t-test the researchers found out which differences were meaningful.

Excel has a formula for this test, Kevin went through the steps to get there, and in Excel he showed the group how to do it. Kevin used a randomly generated list of names and scores where the scores were gradually increasing. He used 3 formulas, first is the average of the pre-test, average of the post-test, and statistical significance.  To calculate the averages, he used the excel formula for "Average". The average for the pretest was about 18 points lower than posttest, to see if that difference is significant, Kevin used the t-test formula to find the statistical significance. After selecting all the cells with scores then he chose the distribution he was interested in.

Kevin addressed the other questions he had about Excel. He showed the group how to do a quick pivot table or chart off the data he used for his t-test example. He recommended that people who are interested in more info on Pivot tables and charts should check out his previous session on them.

Another question was about a Gantt Chart in Excel. Excel does not have an easy way to make one, but Kevin went through how he made one in Excel using the 2-D stacked bar chart, and then he formatted it to make it a Gantt Chart.

Next session will be on September 15th at 9:00 am, Charla will send a reminder and a calendar link. She will also send a follow up email with all the information, presentation from today.