

Data Boot Camp 2.0

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All Lessons



Print this out and use it as a checklist to keep track of your progress through all the lessons.

Unit 1: Excel Basics

- Basics: This video covers some basic terminology and features of Microsoft Excel™.
- Accessing Your Data: There are four (4) primary ways for accessing data, this page shows you each one.
- Adjusting your column width: There are three primary ways to adjust your columns to reveal all of the data contained within.
- Moving Data Around: In this video, you will learn the basics for navigating Excel and moving data around according to your needs.
- Splitting or Merging Data: These videos will show you how to either split data from one column to two or vice versa. This procedure is incredibly useful such as when dealing with first and last names, for example.
- Freeze Pane: Have you asked yourself this question yet, "*When I scroll down to view data, how do I know which columns I am looking out because the top row with labels are no longer visible?*" This is one of those Excel annoyances that does have a quick solution. Watch the video to check it out.
- Formatting: This video will demonstrate some common formatting techniques to help you get your data looking just the way you want it.

Unit 2: Data Snooping

- Sorting Data:** This video will show you how to do one or more levels of sorting.
- Filtering Data:** This one shows you how to isolate data by using the filtering function in Microsoft Excel.
- Highlight and Calculate:** You can get basic descriptive data in Excel just by highlighting the data you want.
- Formulas:** This video overviews and demonstrates how to enter basic formulas.
- Describing Data:** Microsoft Excel can help you to get a basic description of your data which includes central tendencies (i.e., mean, median, mode, maximum, minimum, standard deviation, and more).
- Disaggregating Data:** This section demonstrates two ways to disaggregate a "dependent variable" by one or two "categorical variables." For example, a common procedure is to disaggregate an academic achievement variable such as attendance (dependent) by ethnicity (categorical) and/or gender (categorical). You can select multiple dependent variables.

Unit 3: Analyzing Data

- Differences:** Learn how to create a new column which shows the difference between two scores, typically pre-test to post-test. I'll show you the difficult way and an easy way.
- Percent Change:** This video shows you how to calculate percent change between two variables over time.
- Paired Sample T-test:** The T-test assesses whether the means of two groups are statistically different from each other. Using EZAnalyze, we will calculate a T score and P value for the observed difference between two "repeated measures" or paired variables. A bar graph is also automatically generated.
- Independent Sample T-Test:** This procedure compares the mean scores of two independent groups on a given variable.
- One Sample T-test:** The one sample T-test allows you to test for significant difference between an observed group and another known sample (the numeric test value or NTV).
- Correlation:** Correlation is a statistical technique which can show how strongly pairs of variables are related.

Unit 4: Charts or Graphs

- Choosing Charts:** Among all my choices (e.g., bar, line, pie, scatterplot, stacked), how do I know which chart to choose? And, how do I create a chart within Microsoft Excel, anyway?
- Chart Rules or Guidelines:** This lesson will overview several principles of effective chart design and layout.
- EZAnalyze Charts:** This video demonstrates how to use EZAnalyze to generate or create your chart.
- The F11 Trick:** One of the neatest keyboard shortcuts in Excel is the "F11" trick which generates bar charts in Excel in two easy steps ... watch.
- Switch Row-Column:** Sometimes your data is a bit backwards such as when your student names show up on the legend (right side) and the data shows up on the bottom (X-axis). This video shows you how to reverse that.
- Goal Lines:** Especially useful for creating charts for Response to Intervention (RtI), this video will show you how to include both student performance data and a baseline when creating a chart.
- Trend Lines:** These may help students (individuals or groups) get excited about future progress.
- Customizing Charts:** Once you have created your graph or chart, you can customize various formatting such as colors, fonts, backgrounds, and content type.
- Waffle Charts** are similar to pie charts in that they communicate proportion (relative part to the overall whole).
- Thermometer Chart:** Learn how to make a thermometer chart to help students know when they're getting "hot."
- Charts by Google Docs:** See how Google Docs can do many of the same things that Microsoft Excel™ can do and a bit more.
- Time and Task:** Calculate how many hours you have spent in different categories of tasks using a combination of Microsoft Outlook and Excel.

Unit 5: Multimedia Results Reports

- Narrated, Self-Advancing, Multimedia PowerPoint:** Can you imagine sending to your administrators, school board members, parents, teachers, and other stake holders a brief multimedia accountability report that demonstrates the positive impact you have on student achievement? Picture your superintendent receiving an email from you with an attachment. She clicks on the attachment and within seconds begins to listen to (and watch) a digital story that describes how you systematically and collaboratively impacted growth and achievement among your students. The superintendent enjoys the show better than reading about it on paper and you love it because it takes less time and is more fun to create.
- Converting your PowerPoint to Video:** There may be instances when you want to convert your PPT to video which is more easily viewed by others online such as with YouTube or TeacherTube. This section will show you how.

Unit 6: Other Tips and Tricks

- Identifying (and removing) duplicate data.** This video demonstrates how you can have Microsoft Excel identify and give you the option to delete duplicated data -- a common procedure.
- Merging data from two sheets or files.**
- Filling in cells with a common value.**
- Adding "zebra stripes" to your spreadsheet or shading alternating rows.**
- Printing tricks.**
- Converting PDF documents.**
- My favorite Excel and PowerPoint support websites.**

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