Data Software and Statistical Analysis

Purpose
To become Excel masters while learning statistical analysis!

Why?
(It dwarfs Powerpoint and Word in usefulness, and is used extensively outside of high school, yet secondary students graduate with almost no knowledge of it).
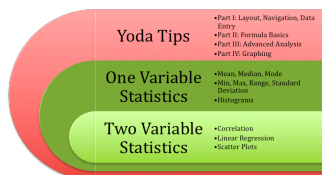
Goal:
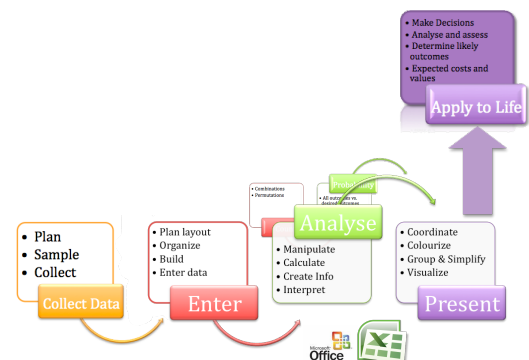To start a solid base of knowledge upon which you can build for the rest of your life.

Data Software and Statistical Analysis
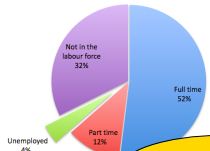
Microsoft Office

In Word, start a note with these three sections.

Yoda Tips	•Part I: Layout, Navigation, Data Entry •Part II: Formula Basics •Part III: Advanced Analysis •Part IV: Graphing
One Variable Statistics	•Mean, Median, Mode •Min, Max, Range, Standard Deviation •Histograms
Two Variable Statistics	•Correlation •Linear Regression •Scatter Plots

What is Data Management?

- Plan
- Sample
- Collect

Collect Data

- Plan layout
- Organize
- Build
- Enter data

Enter

- Manipulate
- Calculate
- Create Info
- Interpret

Analyse

- Coordinate
- Colourize
- Group & Simplify
- Visualize

Present

- Make Decisions
- Analyse and assess
- Determine likely outcomes
- Expected costs and values

Apply to Life

Examples: What are we talking about?

Great looking charts and graphs
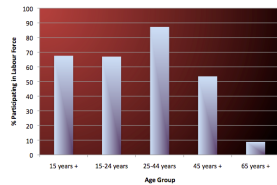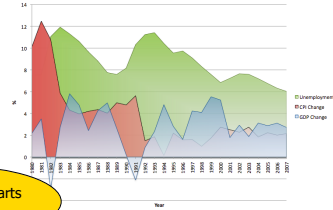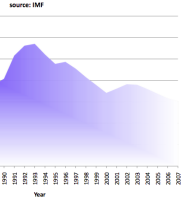
Clear, user-friendly schedules, data forms, and calculation tables

Boulton's Magical Mortgage Calculator

Games, simulations, and more!

What is the process?

How does our lesson outline correspond to the process of analysis?

Slide 1

Enter

Yoda Tips Part I

Data Entry, Layout, Setup, and Navigation:

- Numbers, functions, labels - What's the diff?
- Layout - wise and unwise
- Row and Column headings - autofill for dates, etc.
- Copying en masse (entire columns, rows, ranges, and sheets)
- Moving en masse - incl. transpose
- Pasting (special)
- Inserting (single, multiple rows & columns)
- Change "Enter" direction (down, right, etc)
- Freeze panes
- Cell naming

Slide 2

Let's take a step back...

- Plan
- Sample
- Collect

Collect Data

Problem

Sensitive Data Collection

How can you use probability to collect sensitive information?

Illustration Question:

Have you ever sold illegal drugs?