Using Google Forms to Collect Data and Present Results for In-class and Out-of-class Lab Projects

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What you need to get started.

1. A gmail account
2. Microsoft Excel
3. Microsoft PowerPoint

What you need to collect and present data (in real-time if you want).

1. Create a set of questions
2. Create a set of charts and/or figures in Excel using dummy data.
   - Place data in the first *n* columns of a worksheet
   - Create the to-be-graphed statistics (e.g., means, frequencies, percents, etc.) beginning in the $n+1^{th}$ column. Use cell references that are unlikely to be outgrown in your lifetime.
   - Create your chart or figure from these statistics. This should be "finished quality" – including titles, axis labels, captions, background colors, borders, etc. It should be EXACTLY as you want it to appear in class.
3. Create a PowerPoint slide (generally within an existing presentation) that includes the Excel chart created in Step 2 by copying (the whole) chart in Excel and using the "Paste Special" command and selecting "Microsoft Excel Chart Object" in PowerPoint.
4. Create a form in Google Docs that includes your questions from Step 1.
5. Post a link to the Google form in your LMS or email the link to your class.
   - https://docs.google.com/forms/d/1fbV3OWopr3dOEoaT705iO0u0ZPh3n5JGVhyKVSWWTP0/viewform
   - http://web.simmons.edu/~turnerg/TOP2013.html
6. Collect your data…
   - using cell phones in class or…
   - computers out of class.
7. From Google docs, select your survey responses. From the Google Docs menu, choose "File > Download as > Microsoft Excel (.xlsx). Be sure to save it to a place that's easy to find on a classroom computer (such as the desktop) and not some obscure default downloads folder that an angry twenty-something from IT has created to make your life a living hell.
8. Open the downloaded .xlsx file in Excel. Highlight and then copy the cells containing data.
9. Open your PowerPoint presentation, choose the slide with the graph, and double click on the chart/figure. This re-opens the Excel Worksheet in Excel ***from within PowerPoint***.
10. Paste your survey data into the columns that contain the dummy data. Your summary statistics should change with the addition of the new data.
11. Select the chart/figure tab and then re-size and re-position the Excel window.
12. Make PowerPoint the active application and then re-start your slideshow from the current slide.
13. Bask in the "oohs" and "ahs" of an impressed and grateful student body.

Using Google Forms

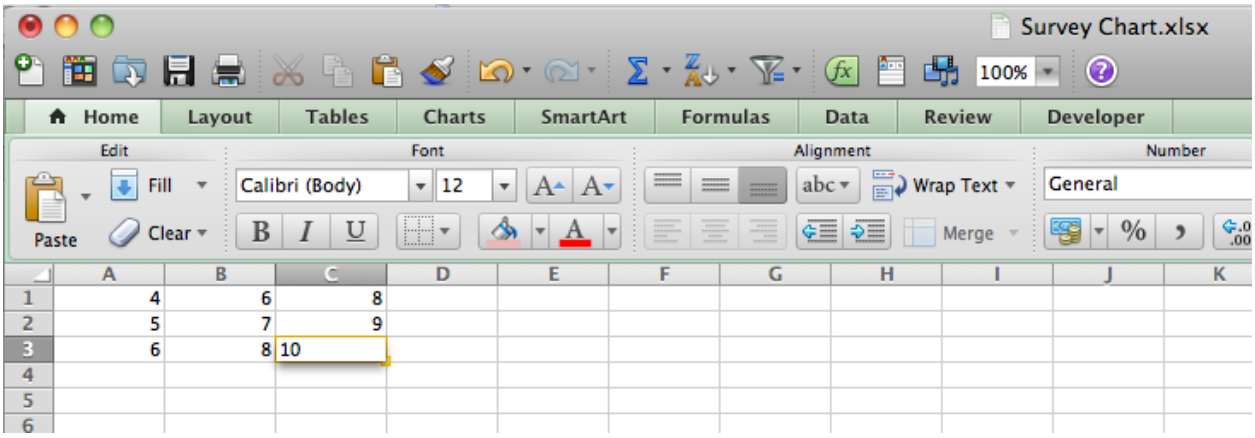
What you need to collect and present data (in real-time if you want).

1. *Create a set of questions*

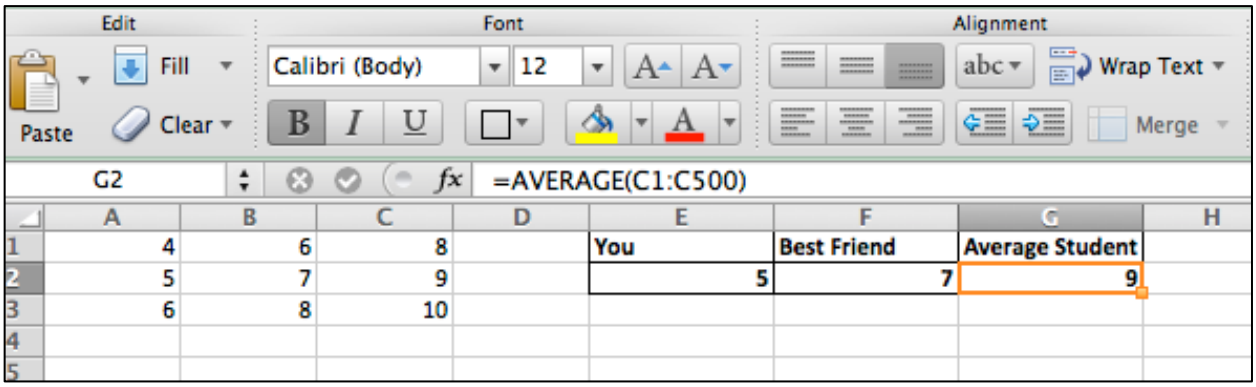
My survey questions:

1. How many alcoholic drinks do you typically consumer per week?
2. To the best of your knowledge, how many alcoholic drinks does your best friend at your university typically consume per week?
3. To the best of your knowledge, how many alcoholic drinks does the average or typical student at your university typically consume per week.
4. How much wood could a woodchuck chuck if a woodchuck could chuck wood (in cords/day)?
5. What is the airspeed velocity of an unladen swallow (in mph)?
6. How many words can you think of that mean "synonym?"
7. Are we there yet?
8. On a scale from 1 to 5, with 1 being the least happy and 5 being the happiest, how happy are you that this quiz is over?

2. *Create a set of charts and/or figures in Excel using dummy data.*
    - *Place data in the first <u>n</u> columns of a worksheet*

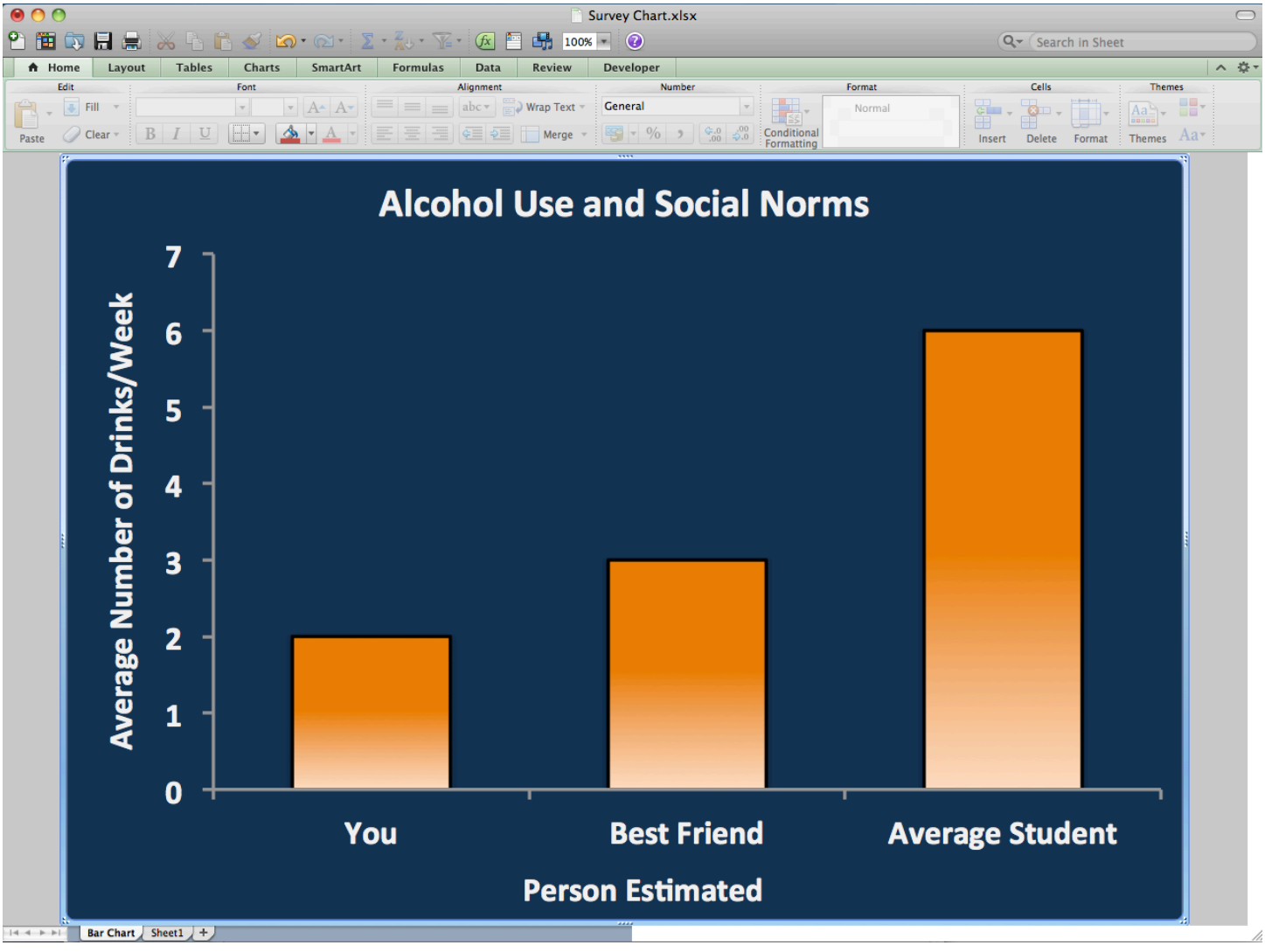


- *Create the to-be-graphed statistics (e.g., means, frequencies, percents, etc.) beginning in the n+1th column. Use cell references that are unlikely to be outgrown in your lifetime.*



	A	B	C	D	E	F	G	H
1	4	6	8		You	Best Friend	Average Student	
2	5	7	9		5	7	9	
3	6	8	10					
4								
5								

- *Create your chart or figure from these statistics. This should be "finished quality" – including titles, axis labels, captions, background colors, borders, etc. It should be EXACTLY as you want it to appear in class.*



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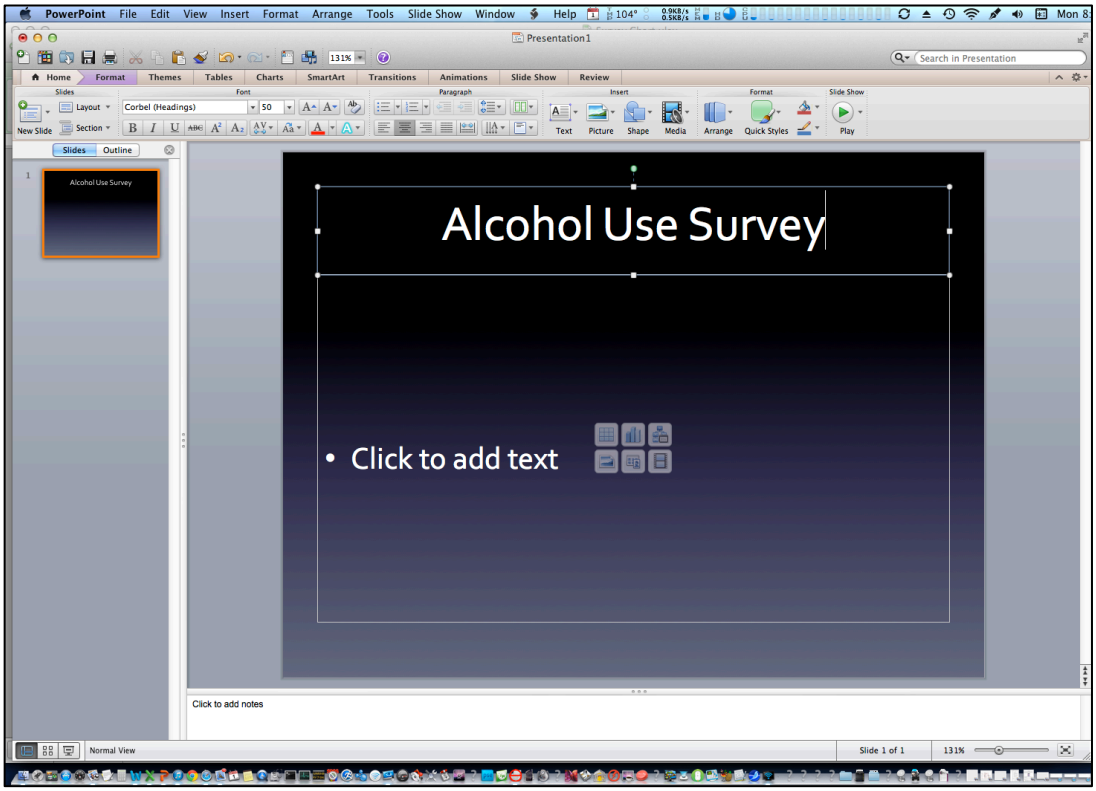
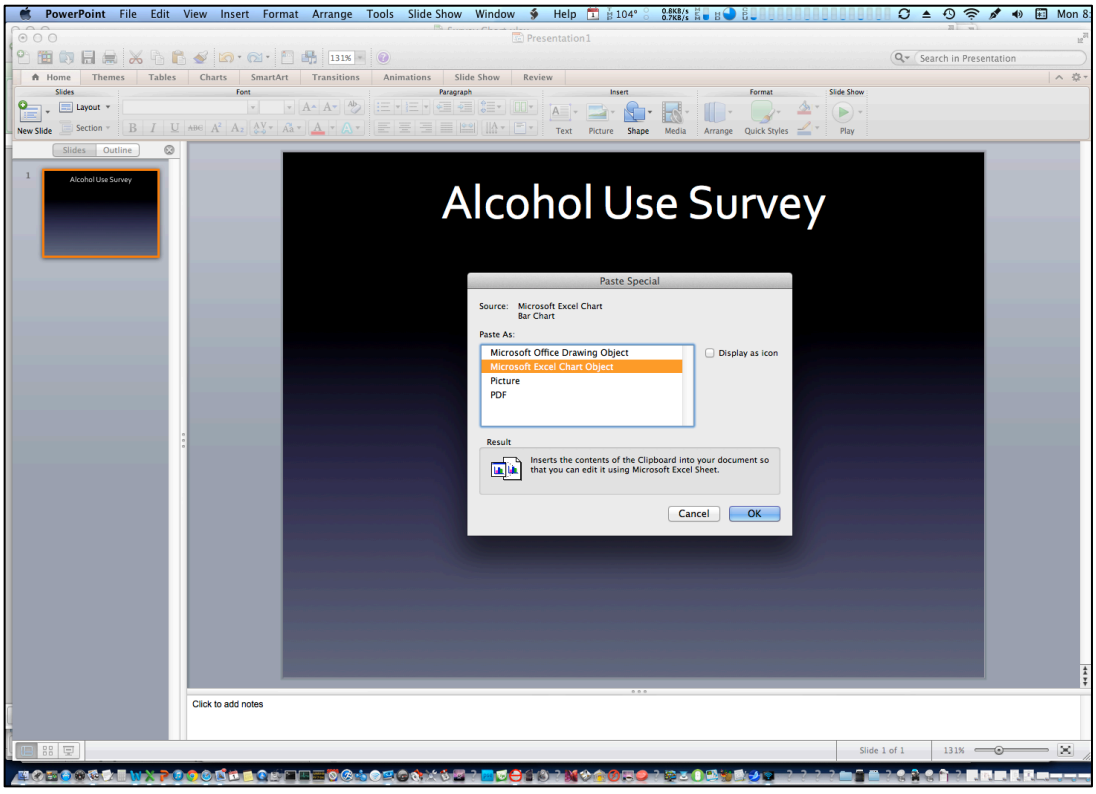
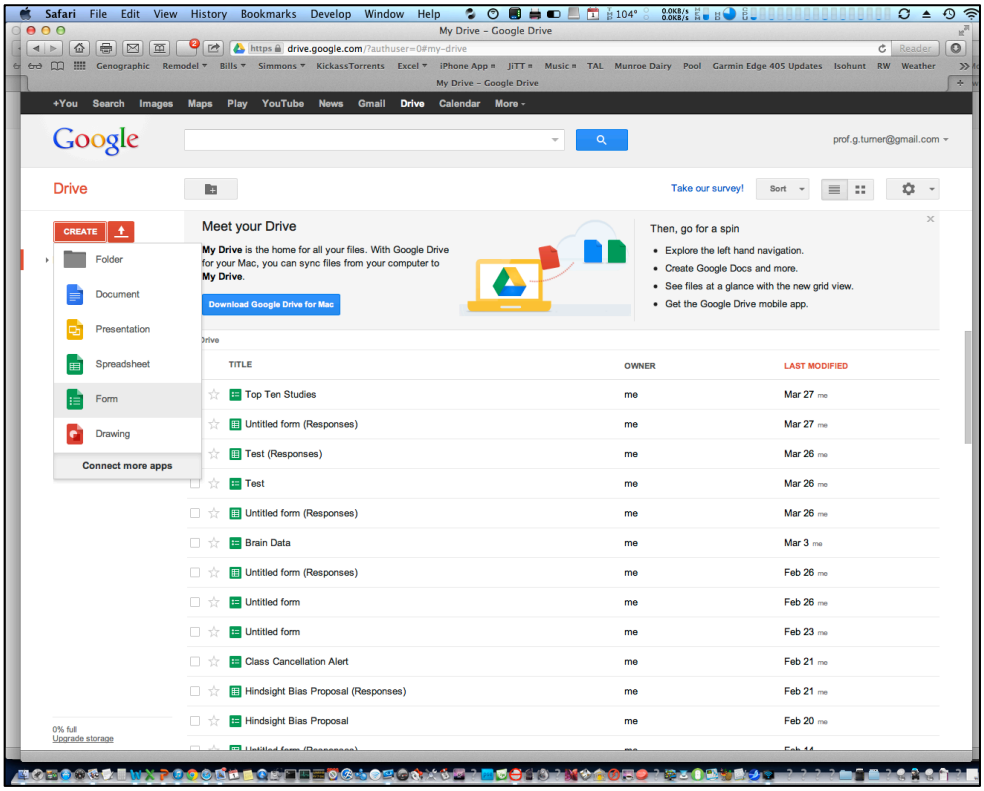
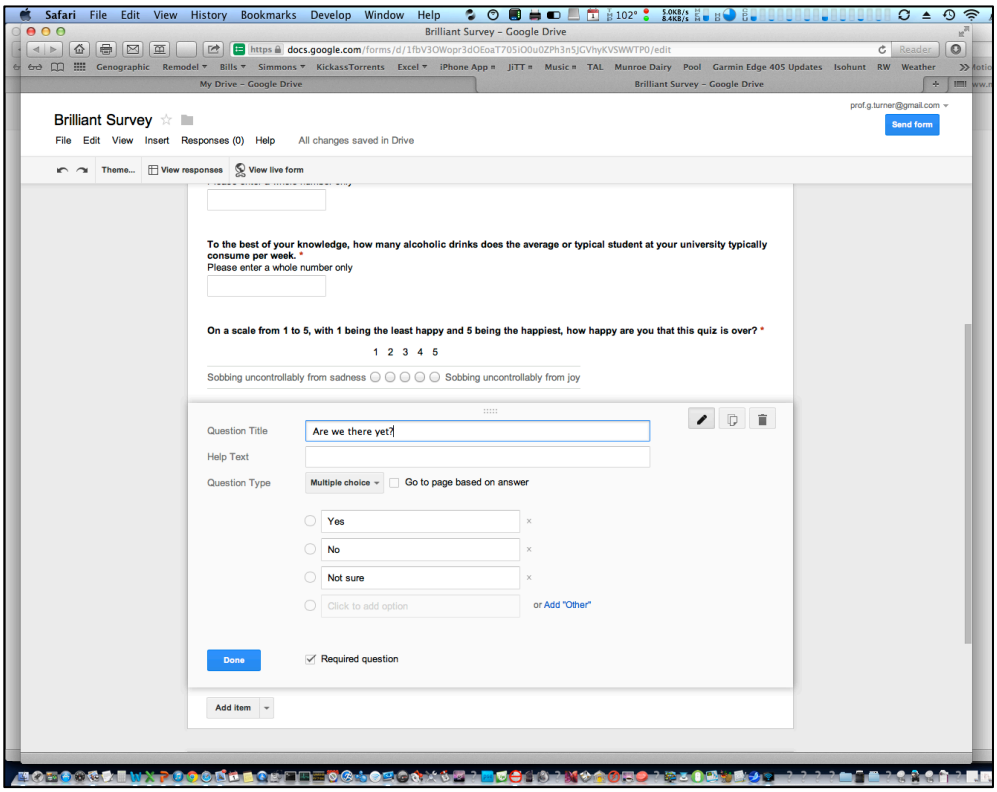




4. *After logging in to http://docs.google.com, create a form in Google Docs that includes your questions from Step 1.*





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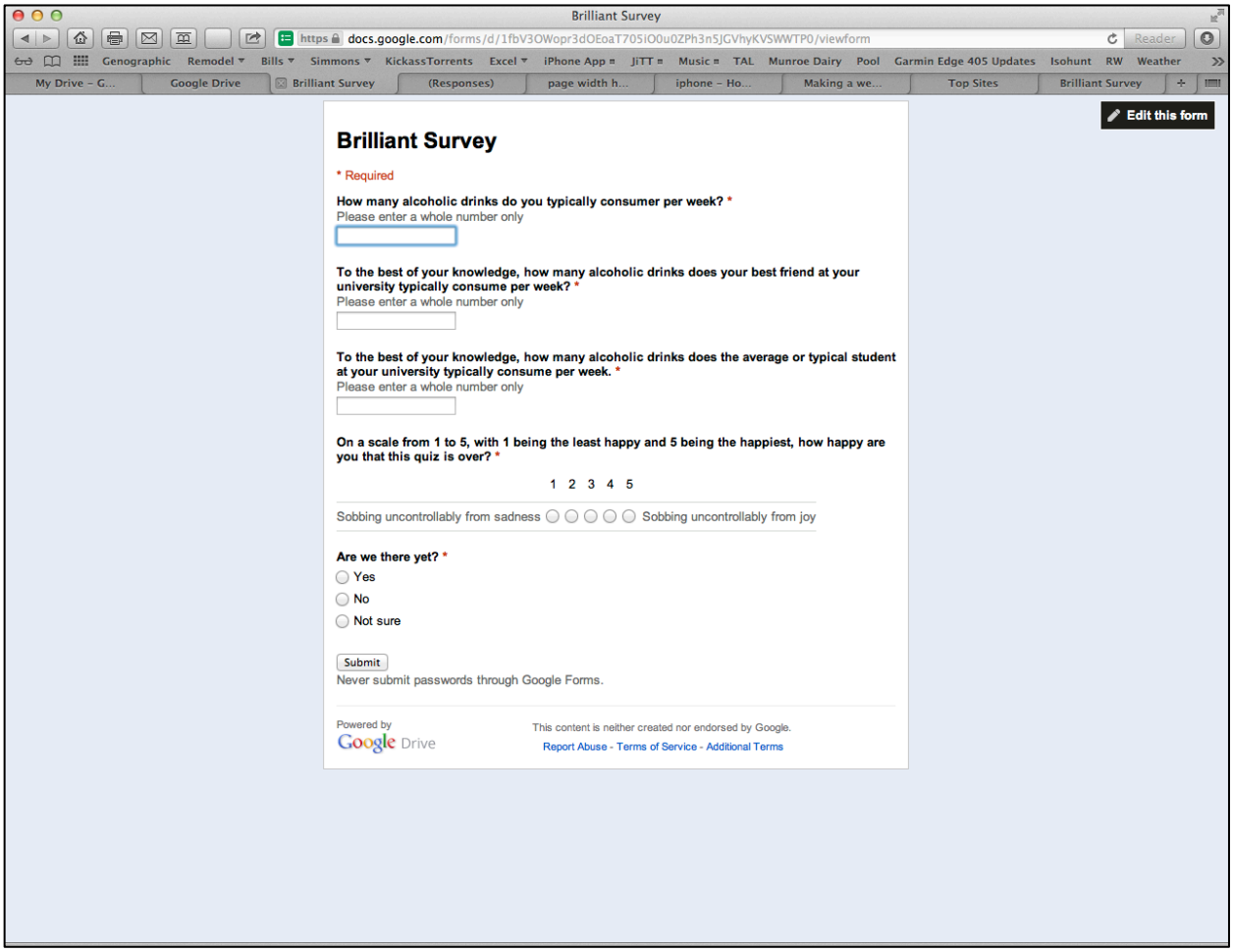
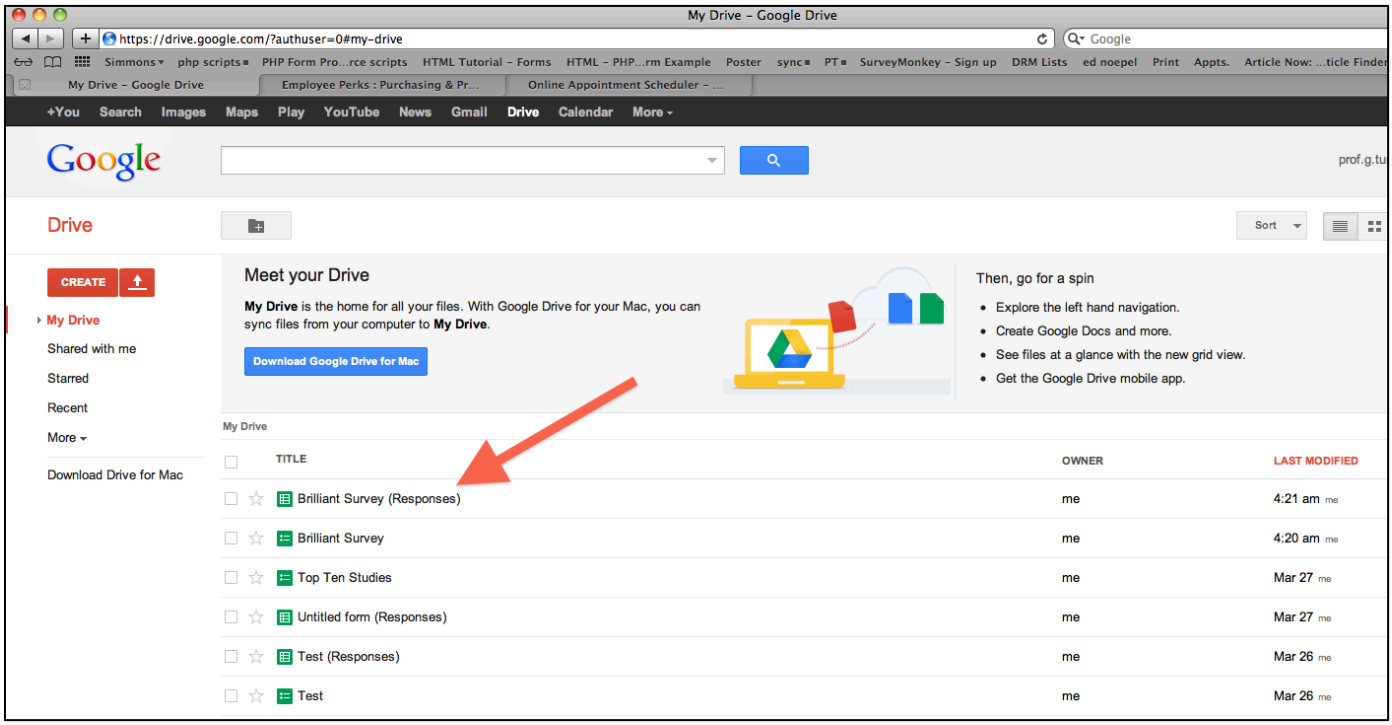
    - *https://docs.google.com/forms/d/1fbV3OWopr3dOEoaT705iO0u0ZPh3n5JGVhyKVSWWTP0/viewform*
    - *http://web.simmons.edu/~turnerg/TOP2013.html*

6. *Collect your data…*
    - *using smartphones in class or…*
    - *computers out of class.*



7. *From Google docs, select your survey responses.*



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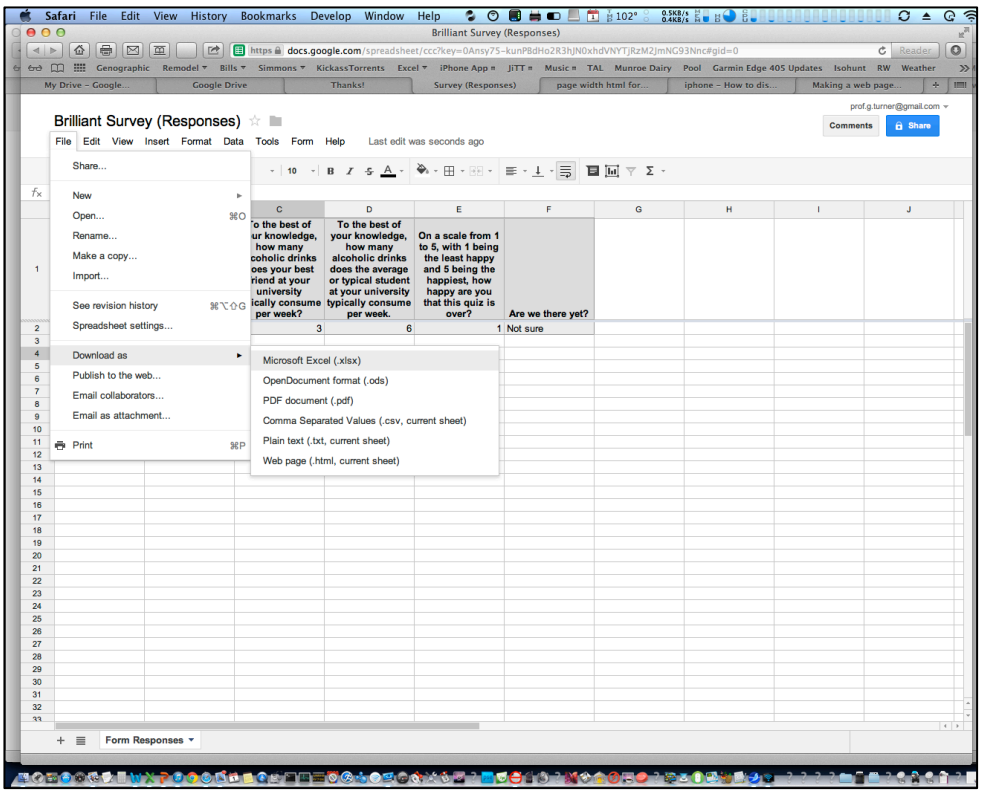

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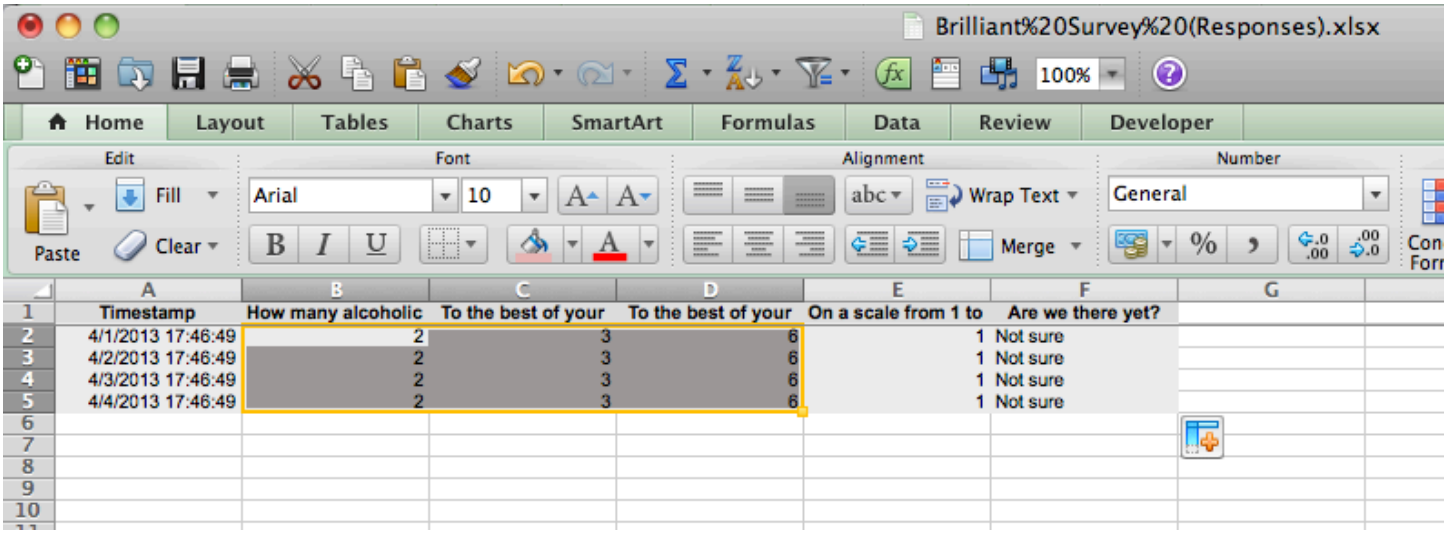

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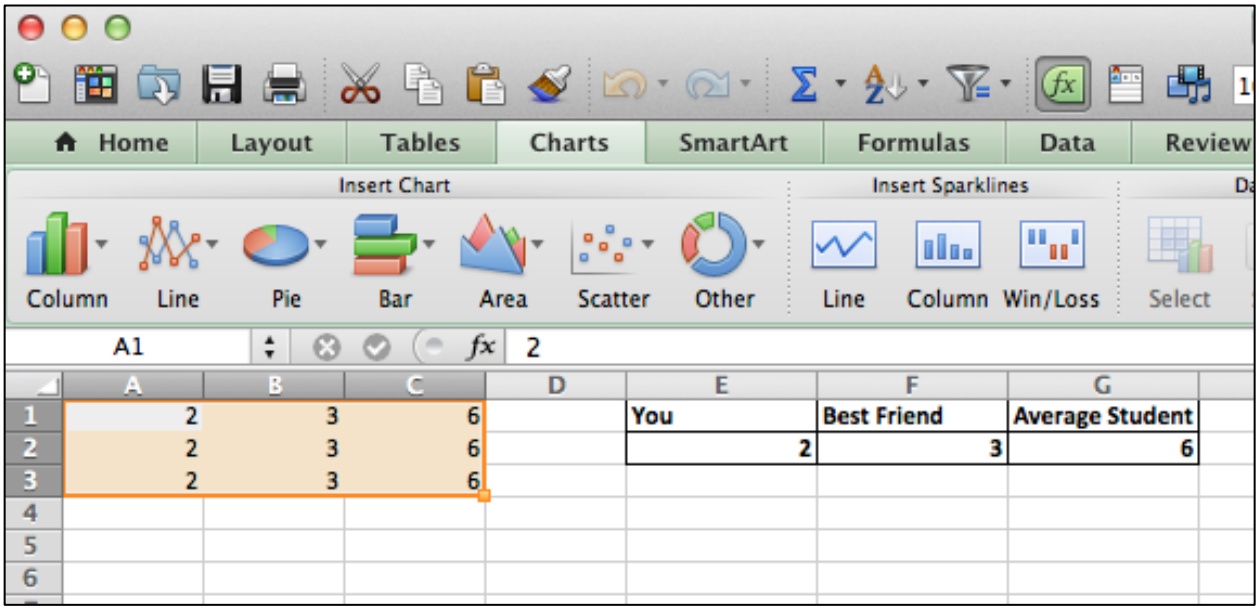

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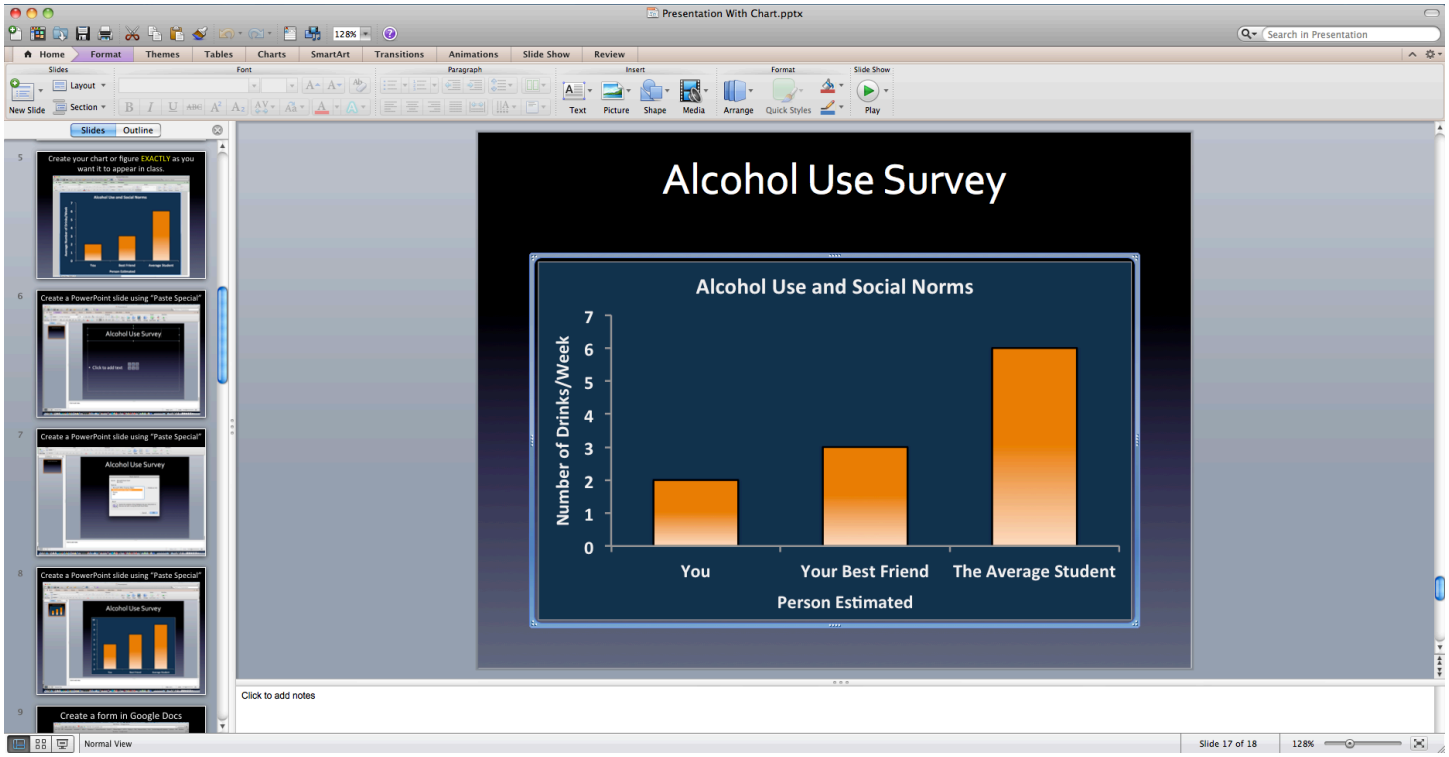

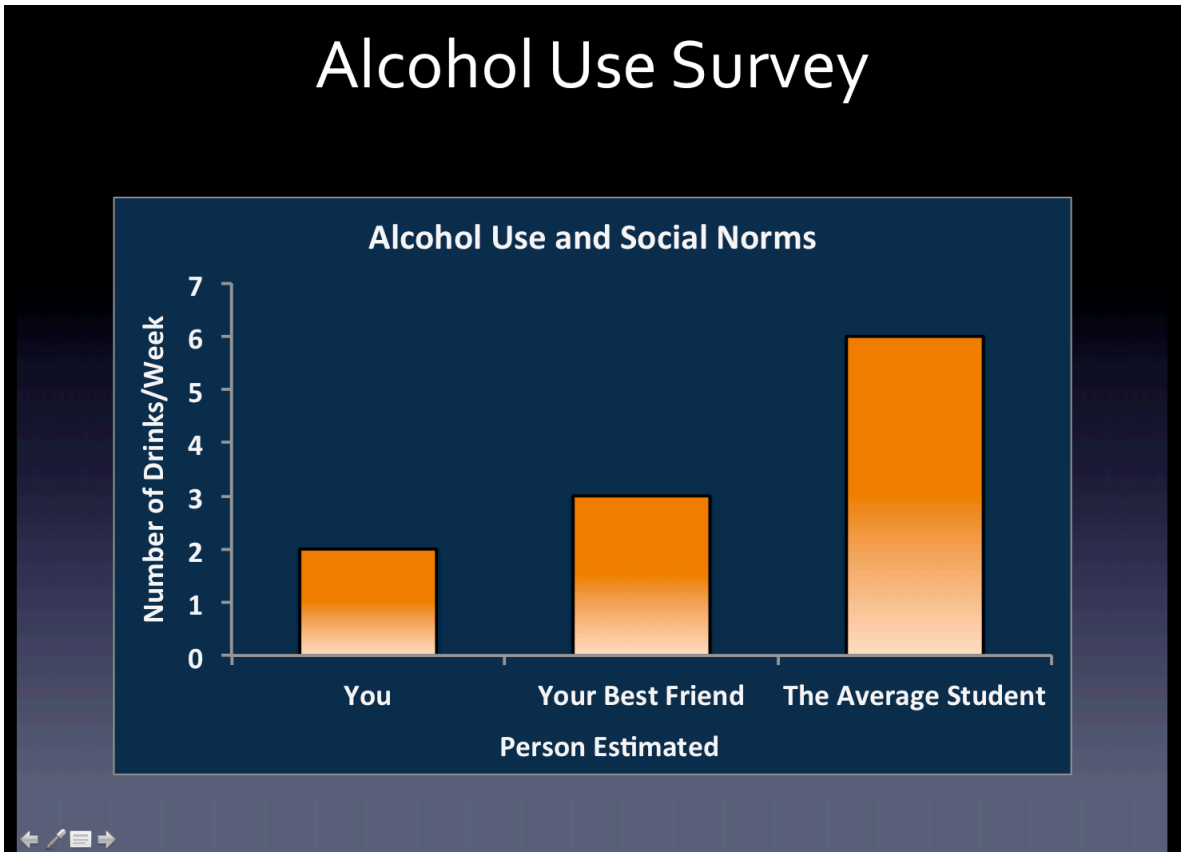

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