



CENTER FOR
APPLIED RESEARCH AND
EDUCATIONAL IMPROVEMENT

UNIVERSITY OF MINNESOTA

Surveys from Start to Finish

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Agenda



Workshop Logistics

- 3.5 hour workshop
- About 30 minutes per module
- We will take a few breaks, but take additional ones as needed
- Participatory

Modules

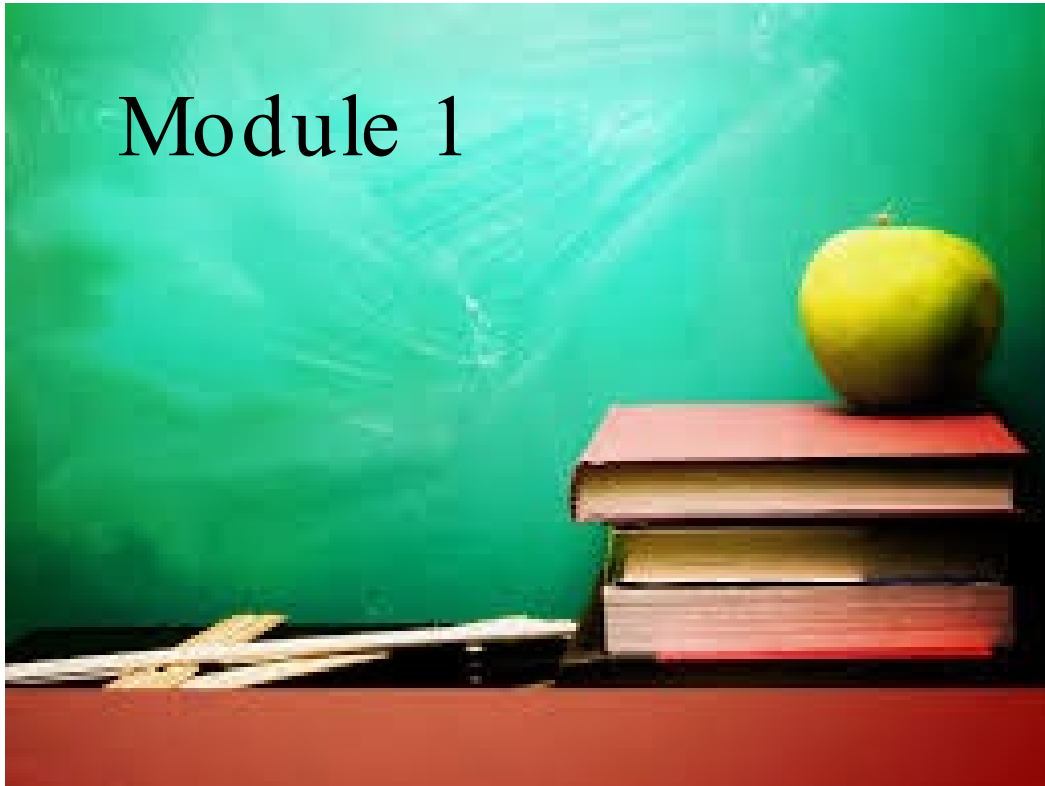
1. Why Surveys and Purpose
2. Writing Surveys - What to do
3. Writing Surveys - What not to do
4. Online survey administration
5. Paper administration
6. Basic Analysis
7. Reporting and Communication

Introductions

- Name
- Program/ organization/ company
- Role
- Thing you are most looking forward to for Spring!

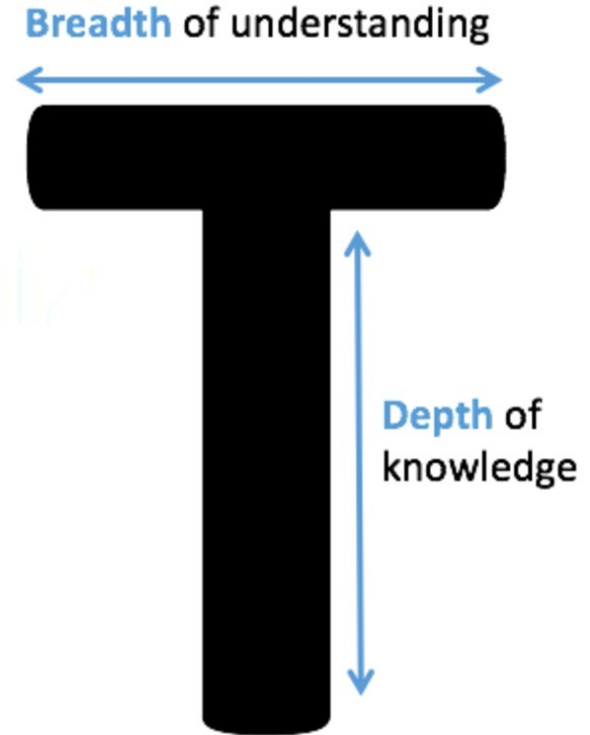


Why Surveys and Purpose



Quantitative vs Qualitative

- Quantitative data provides more breadth of information (opinions from a lot of people, more surface level information)
- Qualitative data provides more depth of information (opinions from less people, deeper understanding)



Brainstorm

What are some reasons why you would give a survey?



Purpose

Align purpose with survey items, administration method, analysis, and reporting

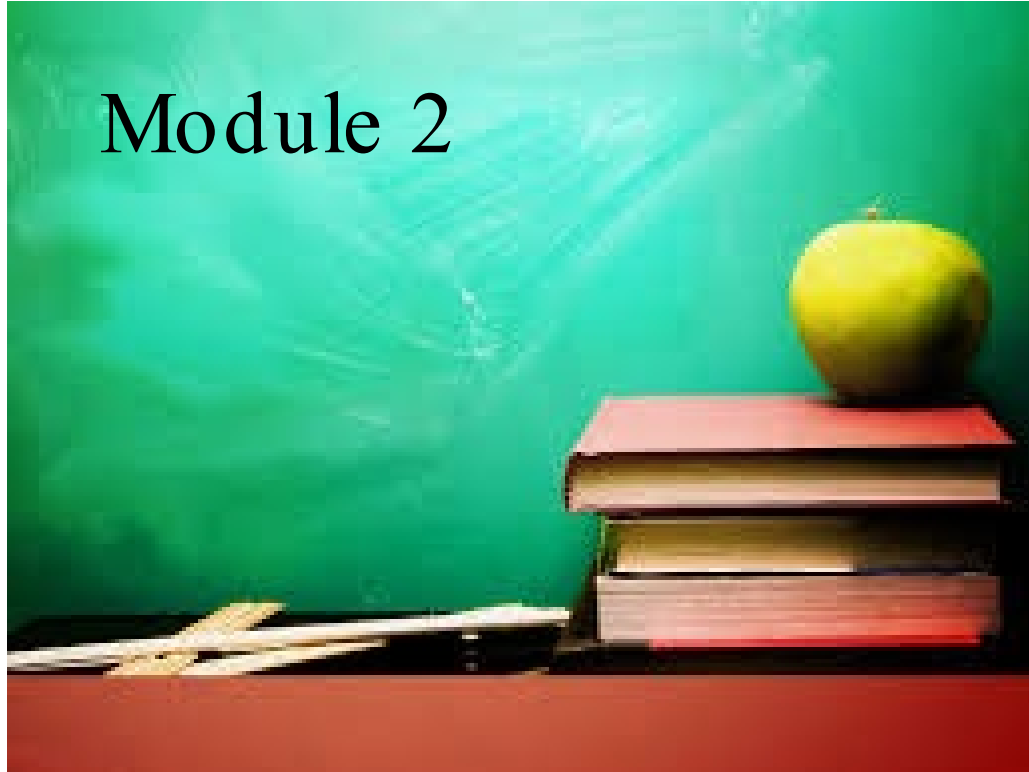


Examples of this:

- If the survey is about program improvement, ask questions that are feasible changes.
- If the purpose is reporting, more focus on data visualization and reporting.

Writing Surveys - What to do

Module 2



Surveys in Evaluation

- When surveys are part of evaluation, they should be tied to your logic model.
- After you complete your logic model, create a data collection plan to determine where data is coming from (e.g focus groups, extant data, surveys).

Outputs	Outcomes	Data Source	Timeline	Person Responsible

Planning

- Does the data already exist?
- Would it be a better fit for qualitative data collection?
- How are you going to use the information?

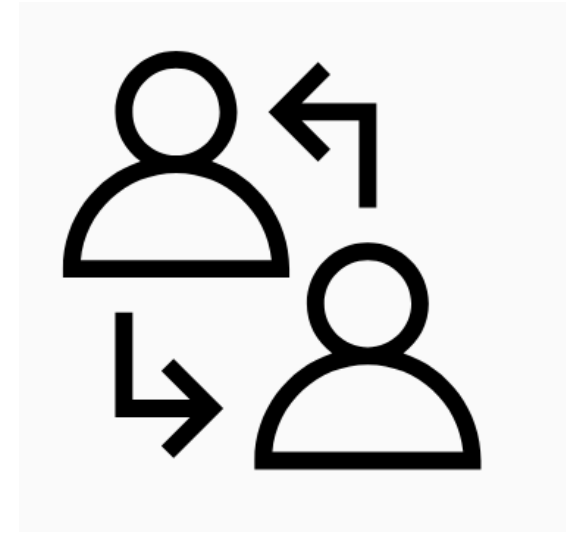


Discussion:

- What else could you consider?

Engaging Stakeholders

- It is important to engage stakeholders from the beginning.
 - They may have a different perspective
 - They may be the ones actually doing something as a result of the survey findings (and they are more likely to do something if they have been engaged since day 1)



Organizing Your Questions

- It is typically helpful to think about your questions in categories or constructs.
- Examples of constructs: communication, planning, implementation, challenges, strengths, alignment
- Do you need any demographic information?
- Do you want any qualitative data - open-ended questions?
- How will you prioritize your questions?



Tip: You may want to brainstorm without thinking about length, and then cut down/prioritize

Ordering Questions- Considerations

- A survey respondent's time is a limited resource. Shortest survey possible to achieve goals.
- Sensitive information at the end (respondent can get 'warmed up')
- Demographic info at beginning or end? Depends!
 - Level of sensitivity
 - Level of importance (e.g. grade level is essential so put it at the beginning, race/ethnicity is helpful so put it at the end)
- Earlier questions can influence how respondents answer subsequent questions.
 - (e.g. ask series of questions about Professional Learning Communities (PLCs) and then ask what types of Professional Development is helpful, may be more likely to say PLCs)

Remember Purpose

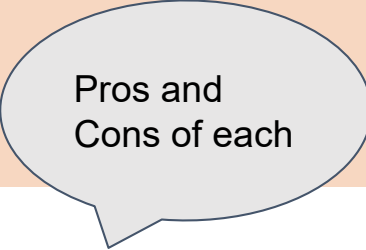


Information that ‘would
be interesting to know’



***Aligned to Purpose**
***Actionable**

Types of Questions



Pros and
Cons of each

Dichotomous

Do you wish winter was over?
Yes/No

Check all that apply

Are you currently feeling frustrated by:

- The cold temperatures
- The amount of snow
- The number of snow days we have had this year
- The lack of sunlight during the winter months

Scale

Please rate your level of agreement with the following statement: *I wish winter was over*
Strongly Disagree- Disagree- Agree- Strongly Agree

Open-Ended

Have you enjoyed this winter? Why or why not?

Contingency

Do you wish winter was over?
Yes/No

[next question dependent on answer]
If yes, why? If no, why not?

More on Likhert Scale- Types of Scale

Level of Agreement (Strongly Disagree, Disagree, Agree, Strongly Agree)

Level of Importance (Not at all important, of Little Importance, Important, Very Important)

Level of Quality (Poor, Fair, Good, Excellent)



Likert Scales- How many options?

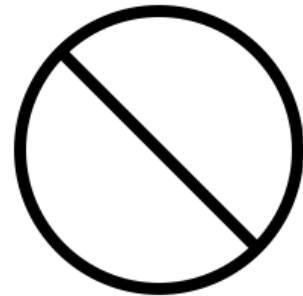
- There is debate on how many scale options to use.
- Some considerations:
 - What is actionable? Remember purpose!
 - More scale items are harder to analyze and present, especially if sample size is low
 - Odd or even number? (usually 4 or 5).
 - How do you think about a neutral category?
 - Jennie's theory on Minnesota Nice and a "neutral" category



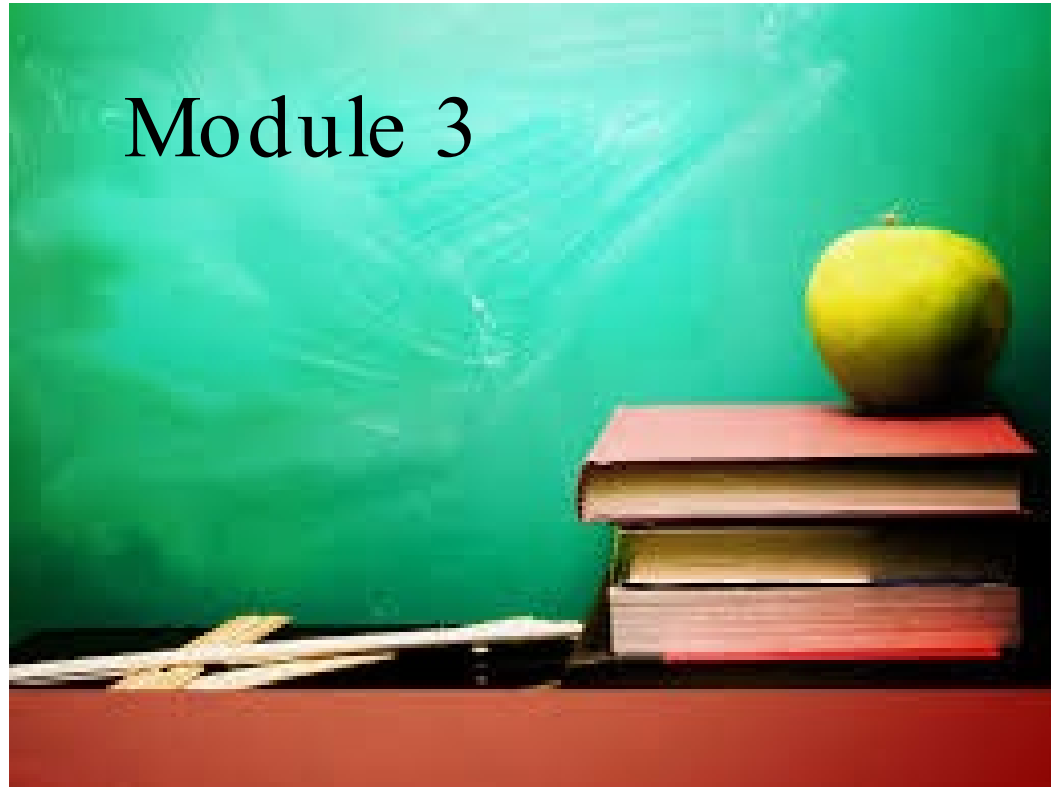
Minnesota Break Room

Other Categories

- What is the difference between ‘neutral,’ ‘don’t know,’ and ‘not applicable’?
- They are all used, and they all mean different things!
- What does having an ‘other’ category mean and when should you use it?



Writing Surveys - What NOT to do



Common Pitfalls: Loaded or Leading Questions

- Small wording changes can produce big differences in results.
 - This is also true for pre/post surveys or annual surveys so plan ahead and stay as consistent as possible!
- Avoid words like “Could,” “Should,” and “Might”
- Strong words that represent control or action, such as “prohibit” have similar results.
- Sometimes wording is just biased, such as: Do you agree that students in your school often dress inappropriately?

Common Pitfalls: Misplaced Questions

- In general, use a “funnel approach” to avoid putting questions in a confusing order.
- Use broad and general questions at the beginning of the questionnaire as a warm-up, then more specific questions, followed by more general easy to answer questions like demographics at the end.
- This also applies to the order of questions within a survey- place questions that focus on a similar topic together.

Common Pitfalls: Mutually Non-Exclusive Response Categories

- Make multiple choice response categories mutually exclusive so that clear choices can be made.
- This means that only one answer will apply to the person responding to the survey.
- Non-exclusive answers- when a person might want to choose more than one answer- can be frustrating for the respondent and make it hard to interpret.

Common Pitfalls: Non-Exhaustive Listings

- A survey writer listing answers in a single or multiple response question needs to make sure that all potential answers to the question are listed for the respondent.
- This means that when you give choices to an answer, you need to make sure to include all of the answers someone might want to include.
- Sometimes it's hard to know what all the answers might be, so include “other” as a choice.

Tip: If you have a survey you are giving over time, use an open-ended to generate listing and change to close-ended the next time you administer the survey

Common Pitfalls: Nonspecific Questions

- Be specific in what you want to know about.
- For example, if you ask “Do you watch TV regularly?” - define what “regularly” means.
- For example, say “Do you watch TV regularly (at least once per day)?”



Common Pitfalls: Confusing or Unfamiliar Words

- Language
- Terminology
- Reading Level
- Developmental Level



Acronyms! Say NO to Alphabet Soup!

Common Pitfalls: Forcing Respondents to Answer

- Forcing respondents to answer happens when there is not a choice that is relevant to the question.
- Also, respondents may not want, or may not be able to provide the information you ask for.
- Keep in mind that privacy is an important issue to most people.
- Questions about grades, relationships, family life, personal hygiene and beliefs (personal, political, religious) can be intrusive and rejected by the respondent.

Common Pitfalls: Double-Barrelled Questions

- Example, “To what extent do you think communication and collaboration is a problem in your school?”
- Either ask two questions, or drop one of the ‘barrels’



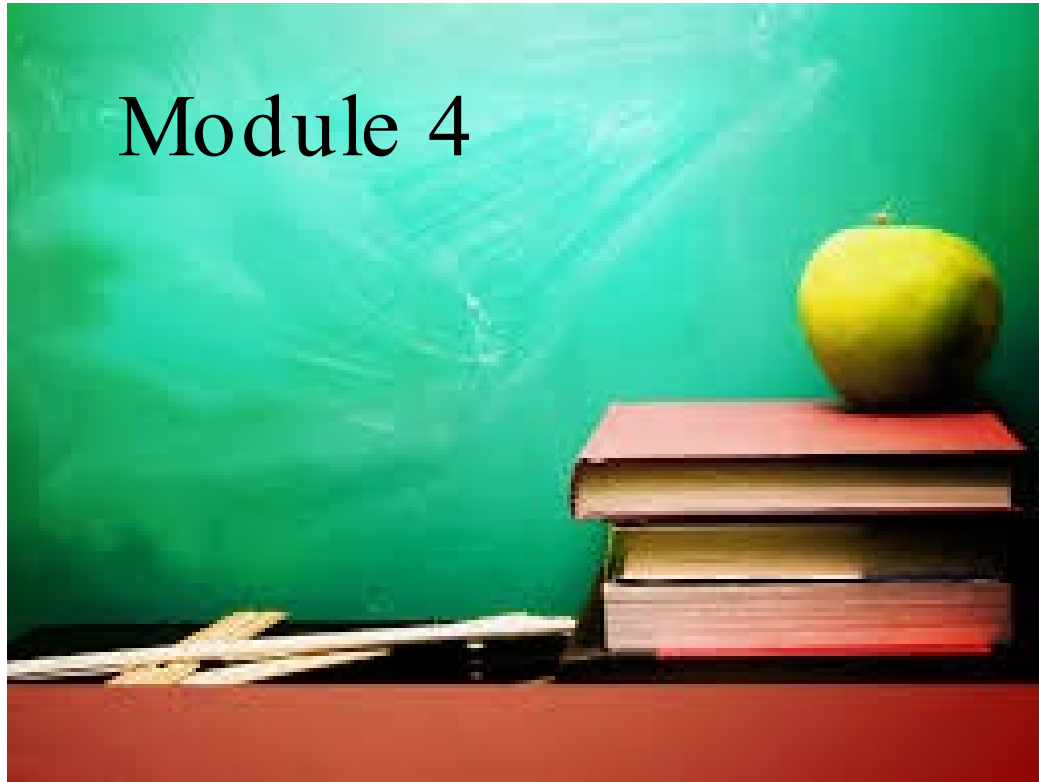
Activity

- Analyze samples surveys that have been handed out.
- Do they have any of the common pitfalls?
- What would make them better?



Online Survey Administration

Module 4



When to Administer Online - Considerations

- Respondents generally have access to email-enabled devices.
- You care more about response numbers than response rate.
- You have a longer survey.
- You have a lot of open-ended responses.



Survey Platforms

- Google Forms - good for Google-integrated organizations
- Survey Monkey - has a little more functionality
- Qualtrics - best functionality but costs \$\$



Matrix Rating Scale

Cluster like- items with the same scale together.

1. Please rate your level of agreement with the following statements.

	Strongly Disagree	Disagree	Agree	Strongly Agree
Statement #1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Statement #2	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Statement #3	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

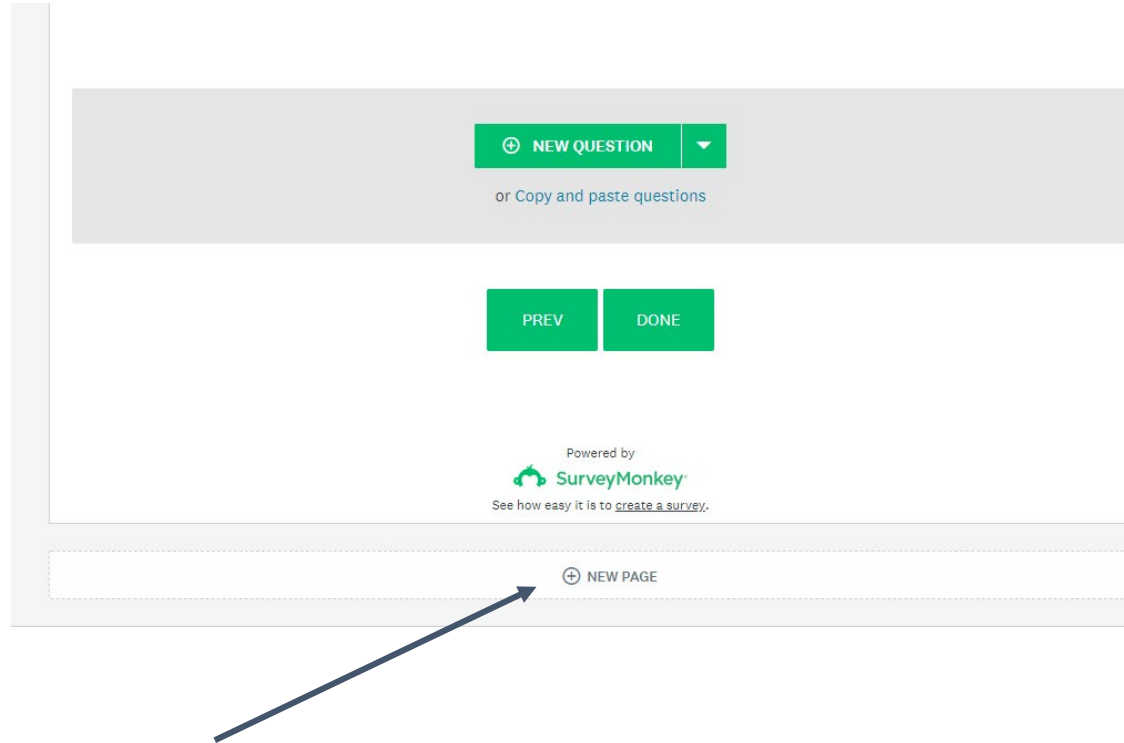
Requiring Questions

In general, you will not want to require questions, but sometimes, you may need to. Under options.

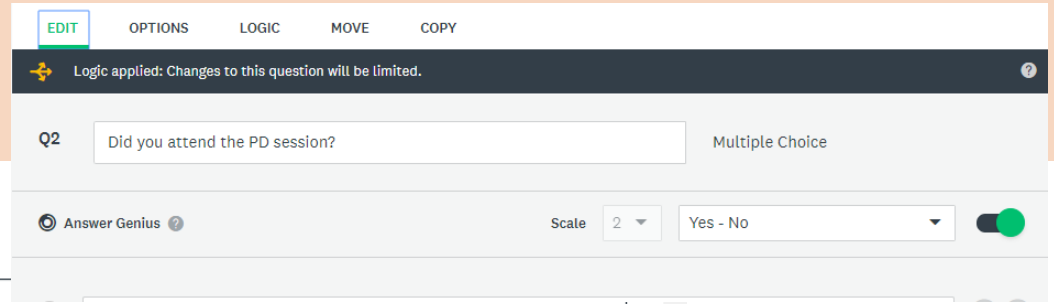
EDIT	OPTIONS	LOGIC	COPY
<input type="checkbox"/>	Require an Answer to This Question		
<input type="checkbox"/>	Randomize, Sort, or Flip Rows		
<input type="checkbox"/>	Adjust Question Layout		
<input type="checkbox"/>	Enable Question Text A/B Test (Random Assignment)		
⊕ NEXT QUESTION			

Adding Pages

- Don't want the survey taker to have to scroll down too much.
- Need new pages for skip logic (next slide).



Skip Logic

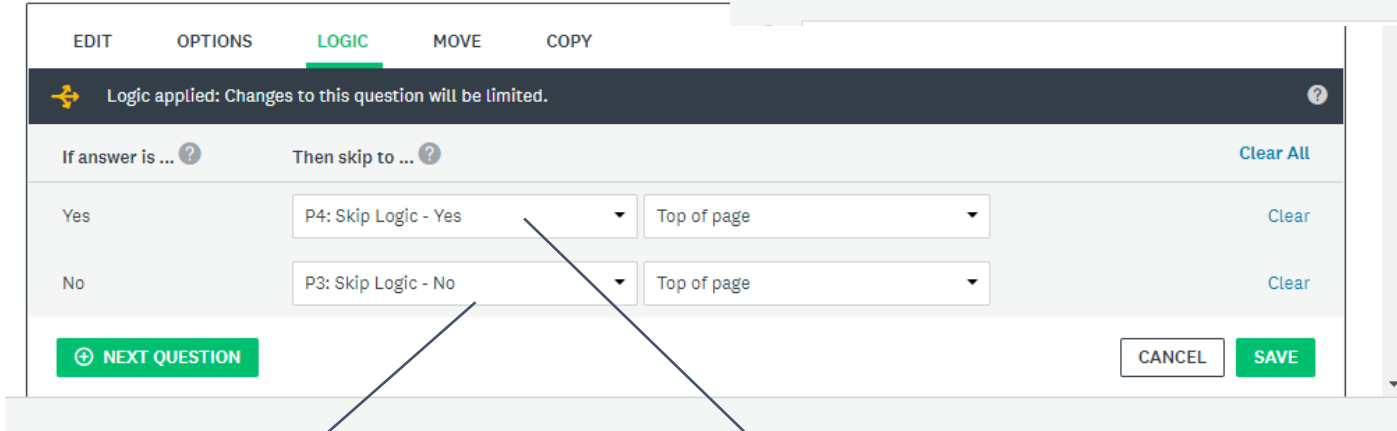


EDIT OPTIONS LOGIC MOVE COPY

Logic applied: Changes to this question will be limited.

Q2 Did you attend the PD session? Multiple Choice

Answer Genius Scale 2 Yes - No



EDIT OPTIONS LOGIC MOVE COPY

Logic applied: Changes to this question will be limited.

If answer is ...	Then skip to ...	Clear All
Yes	P4: Skip Logic - Yes Top of page	Clear
No	P3: Skip Logic - No Top of page	Clear

NEXT QUESTION CANCEL SAVE

4. Why not?



4. What was your biggest take-away?



Tip: Make sure to test your skip logic on the survey preview before launching

Launching- Creating a Timeline

- During planning phase, create a timeline that includes at least a few weeks for administration. Put the closing date in your first email
- Sample timeline:
 - Launch
 - 1 week later - send reminder
 - 1 week later - send reminder
 - A few days later - final reminder
- You can do a survey ‘extension’ deadline if your response rate is not big enough.
 - Be really excited that you extended it.

Tip: Vary the day of the week and the time of day you send the reminders because some people may be available at different times/days.

Ask Demographics or Merge Later?

- Do you have a unique identifier (e.g. student ID number)?
- Can you merge datasets (statistical software or VLOOKUP in Excel)?
- Is your other dataset more or less reliable than self-report?
- How many questions do you need? If it's a small number, maybe it is worth asking.



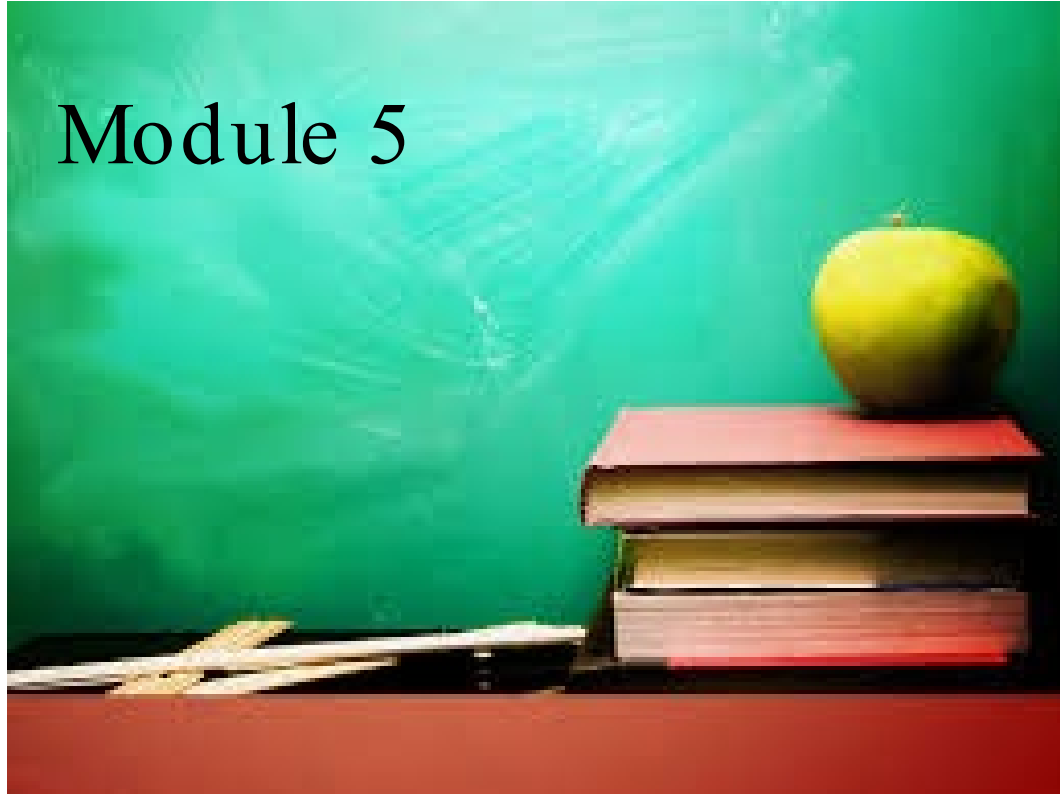
Launching Your Survey

- Write your text that will be in the email they receive. You can also program reminders and write reminder text.
- You can also change who the survey comes from. It is better for it to come from someone they know.
- If you want to do targeted follow up reminders and/or merge data on the back-end for analysis, import your contacts into Survey Monkey instead of generating a generic survey link.



Paper Administration

Module 5



When to Administer On Paper- Considerations

- You care a lot about response rate and you have a captive audience.
- Better for shorter surveys.
- You can still collect identifiable data using paper.
- You do NOT have to spend your life inputting data - there are better ways!



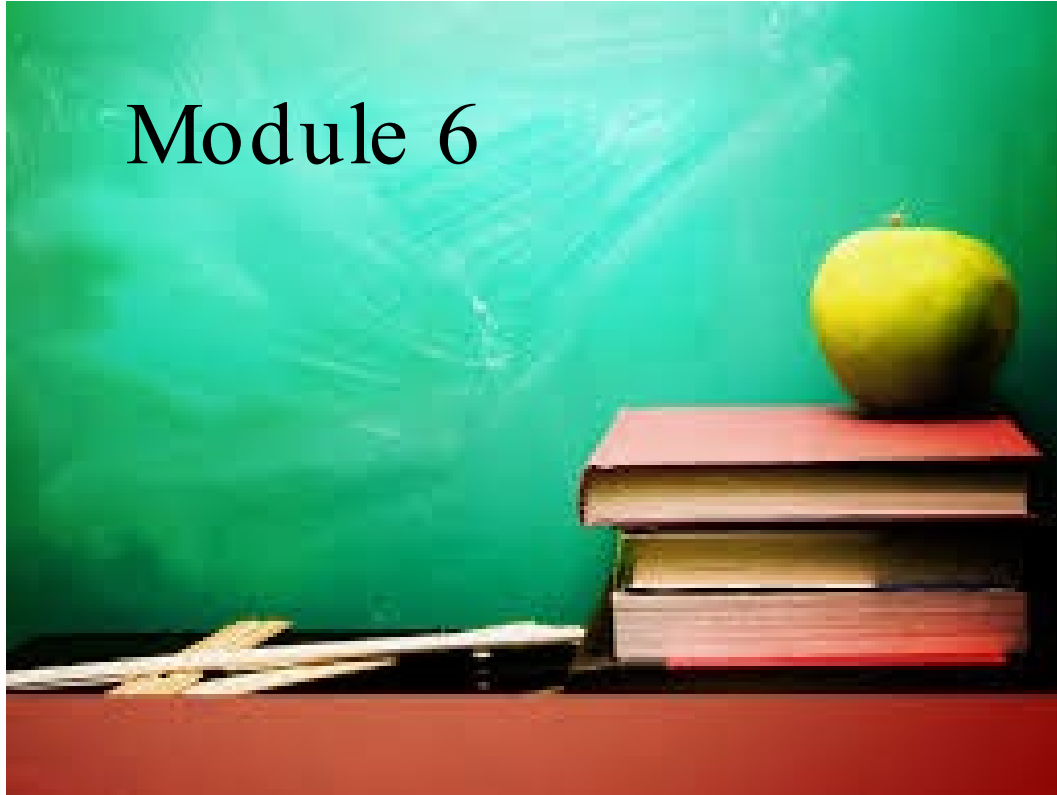
InspiroScan (or similar)

- Inexpensive
- Create surveys online
- Save as a PDF
- Print
- Scan using any professional scanner
- Revise data on the computer if it did not pick it up
- Download as an Excel file
- Saves electronic copies of the surveys



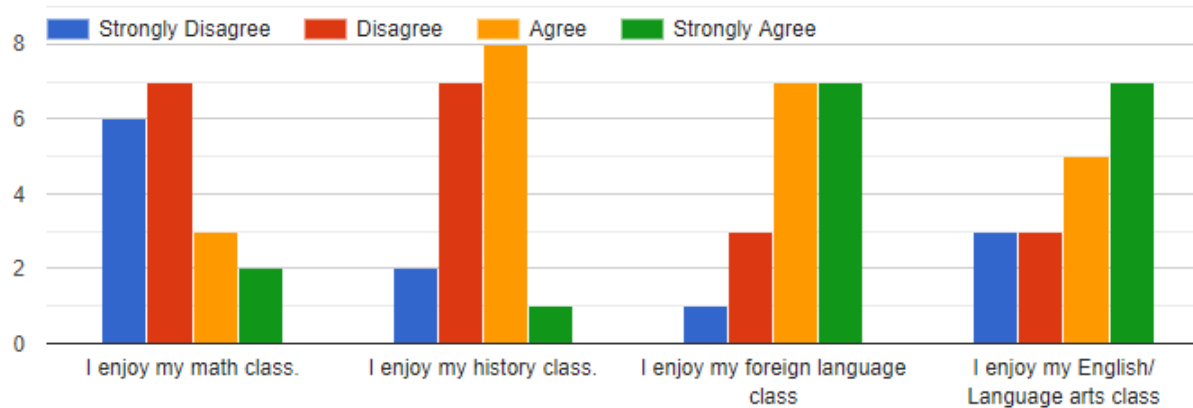
Basic Analysis

Module 6



Provided Analysis

Please rate your agreement with the following statements.

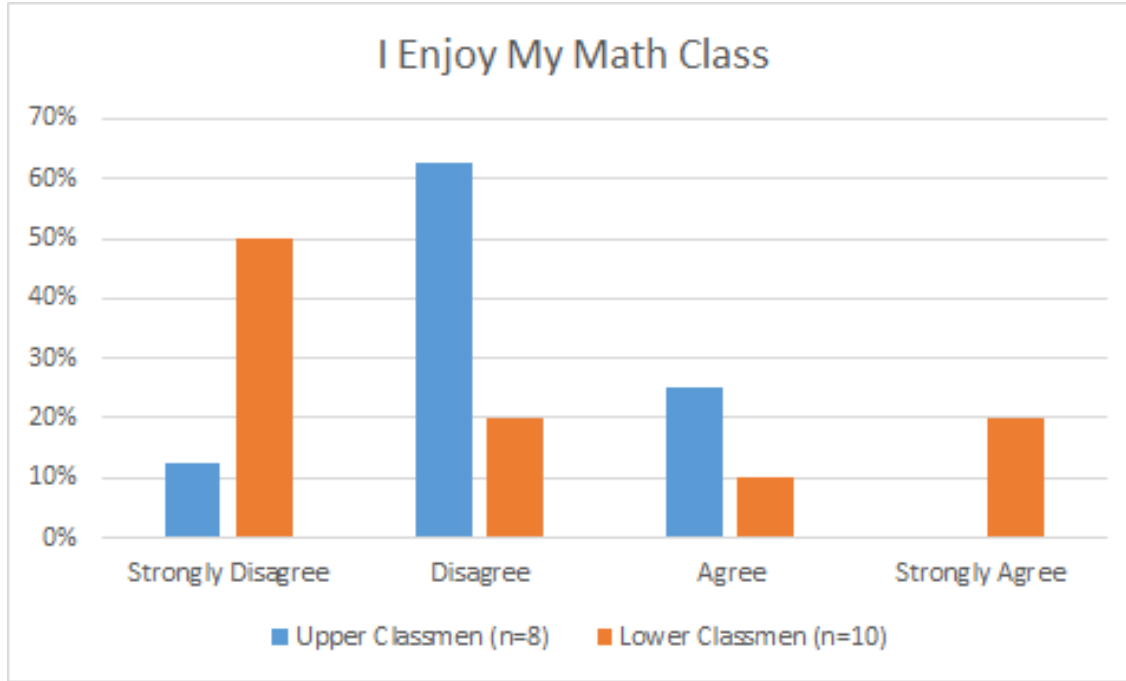


Quicker way to get results, but is limited in what you can do.

Downloading the Raw Data

	A	B	C	D	E	F
	Timestamp	Grade	[I enjoy my math class.]	[I enjoy my history class.]	[I enjoy my foreign language class]	[I enjoy my English/Language arts class]
	3/8/2019 15:33:27	9th	Strongly Disagree	Disagree	Strongly Agree	Agree
	3/8/2019 15:33:36	10th	Disagree	Agree	Disagree	Strongly Agree
	3/8/2019 15:33:44	9th	Strongly Disagree	Agree	Strongly Agree	Agree
	3/8/2019 15:33:53	10th	Agree	Disagree	Strongly Agree	Agree
	3/8/2019 15:34:00	11th	Strongly Disagree	Disagree	Agree	Strongly Agree
	3/8/2019 15:34:07	12th	Agree	Disagree	Agree	Strongly Agree
	3/8/2019 15:34:13	12th	Disagree	Agree	Disagree	Strongly Agree
	3/8/2019 15:34:22	12th	Disagree	Agree	Agree	Disagree
0	3/8/2019 15:34:28	11th	Disagree	Agree	Strongly Agree	Strongly Disagree
1	3/8/2019 15:34:34	9th	Strongly Disagree	Disagree	Agree	Strongly Agree
2	3/8/2019 15:34:41	9th	Strongly Agree	Agree	Disagree	Strongly Disagree
3	3/8/2019 15:34:48	10th	Strongly Disagree	Disagree	Agree	Agree
4	3/8/2019 15:34:54	11th	Disagree	Disagree	Agree	Agree
5	3/8/2019 15:35:00	12th	Agree	Agree	Strongly Agree	Strongly Agree
5	3/8/2019 15:35:05	12th	Disagree	Agree	Agree	Disagree
7	3/8/2019 15:35:35	10th	Disagree	Strongly Disagree	Strongly Agree	Disagree
3	3/8/2019 15:35:41	9th	Strongly Disagree	Strongly Disagree	Strongly Agree	Strongly Agree
9	3/8/2019 15:36:05	9th	Strongly Agree	Strongly Agree	Strongly Disagree	Strongly Disagree
0						

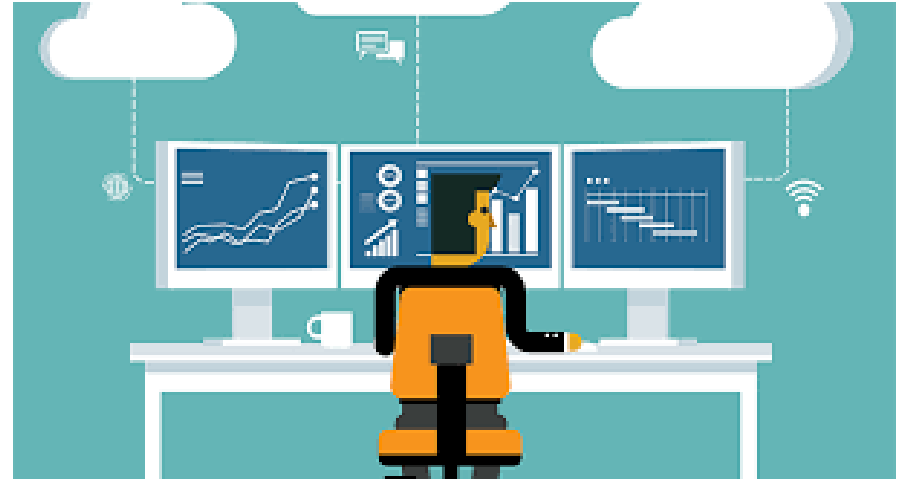
Additional Analysis, Crosstabs



- Downloaded raw data
- Calculated new variable (upper and lower classmen)
- Used Pivot Tables to generate data
- Generated a basic Excel chart to compare the two groups

Psychometric Analysis

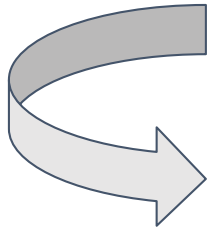
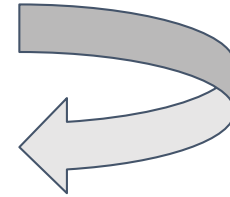
- Some datasets are used for more advanced analysis.
- If that is the case, you would likely have a psychometrician or statistician involved from the design and planning stage.



- But if they are added later, it is good to have a well thought through data collection process so they can do further analysis.

In general, convert from numbers to percentages

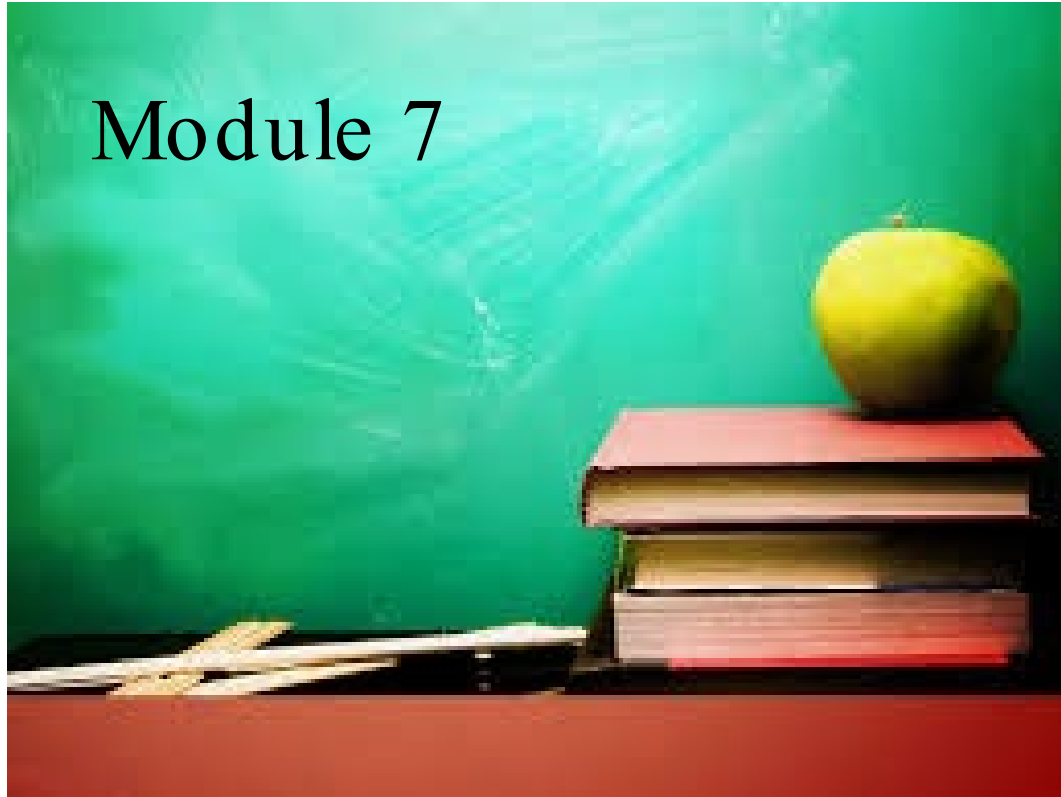
Strongly Disagree	Disagree	Agree	Strongly Agree
7	3	7	1
8	7	1	2
3	7	2	6



Strongly Disagree	Disagree	Agree	Strongly Agree
39%	17%	39%	6%
44%	39%	6%	11%
17%	39%	11%	33%

Reporting and Communication

Module 7



The Importance of Co Interpretation

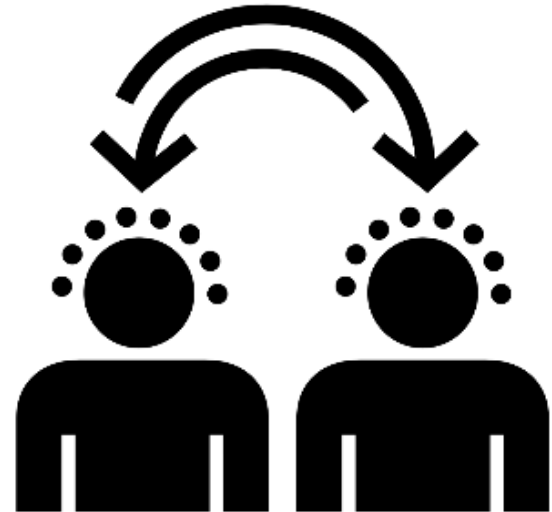
Data expertise

+

Content expertise

=

Accurate and actionable
recommendations



3 Act Data Conversation (or other co-interpretation strategy)

- Facilitated meeting with stakeholders with data packets.
- Not raw data, but not full visualizations.
- Suggest using data tables.
- These findings and next steps will inform the final product (e.g. report, presentation)



The Three Acts

Act 1: Examine the Data

What do you see in the data? Identify **ONLY** what the data is showing. **DO NOT** draw any conclusions yet.

Act 2: Make Meaning of the Data

Based on what you see in the data, and what you know about programs and practices across the district, what are the contextual factors and/or underlying causes?

Act 3: Make a Plan to Act on the Data

Based on the data, and any additional contextual information, what action steps do you recommend? You may want to split these out into immediate action steps (“do now”) and longer term action items (“do later”).

Try the 3 Acts!

Students were not required to answer every question.
Statewide
2016, Grade 11

How old were you when you had your first drink of an alcoholic beverage, such as beer, wine, wine coolers and liquor, other than a few sips?

	<u>Count</u>	<u>%</u>
I have never had a drink of alcohol	16,112	47.9
10 years old or younger	1,508	4.5
11 years old	549	1.6
12 years old	1,274	3.8
13 years old	1,743	5.2
14 years old	2,850	8.5
15 years old	4,415	13.1
16 years old	4,208	12.5
17 years old or older	998	3.0

How old were you when you tried marijuana (pot, weed) or hashish (hash, hash oil) for the first time? (Do NOT count medical marijuana prescribed for you by a doctor.)

	<u>Count</u>	<u>%</u>
I have never tried marijuana or hashish	23,736	70.4
10 years old or younger	318	.9
11 years old	204	.6
12 years old	588	1.7
13 years old	1,118	3.3
14 years old	1,849	5.5
15 years old	2,734	8.1
16 years old	2,622	7.8
17 years old or older	551	1.6

How often do you use each of the following: Alcohol (beer, wine, liquor)?

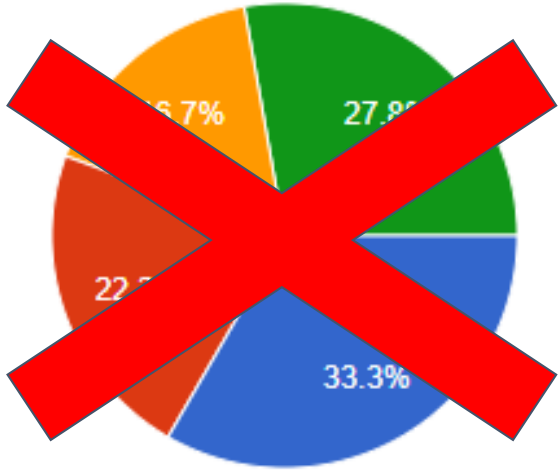
	<u>Count</u>	<u>%</u>
Never	19,178	58.0
Tried once or twice	4,076	12.3
Once or twice a year	3,603	10.9
Once a month	2,591	7.8
Twice a month	2,095	6.3
Once a week	1,299	3.9
Daily	198	.6

The Final Product

- Consider one-pager versions of reports or presentations.
- Pick key data points to use for data visualizations.
- Try using Infographics or visually appealing presentations.
- Embed next steps from co-interpretation session(s).



Data Visualizations



Say no to pie charts!

Say Yes to Stephanie Evergreen!



Stephanieevergreen.com

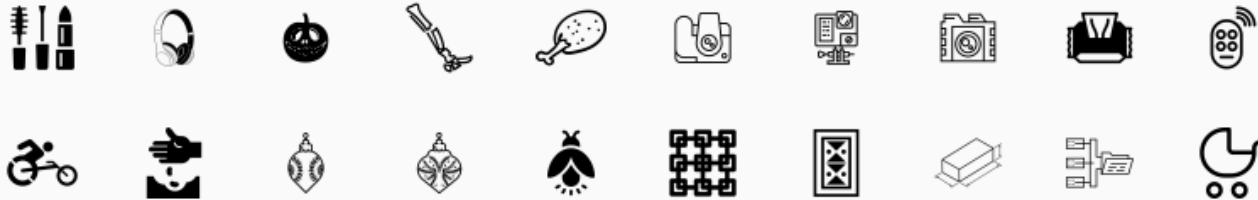
- Look through her free blog!
- Get email updates on new blog entries.

The Noun Project for Infographics

Icons for everything

Over 2 Million curated icons, created by a global community

🔍 Search for anything



They are
throughout
this
presentation!

Thenounproject.com

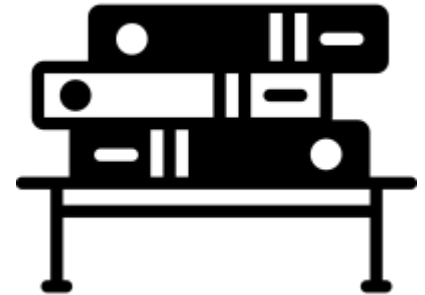
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Nardi, P.M. (2006). *Doing survey research: A guide to quantitative methods*. 2nd Edition.

Patten, M.L. (2001). *Questionnaire research: A practical guide*.

<http://www.edmeasurement.net/presentations/>



Contacting Me:

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And let me know how I can do better!

<https://goo.gl/forms/w42n970JtV9HLRxu1>

*Thank
you*