

Math 9 – Statistics Project

Tool: Get you thinking.

1. Choose a relevant issue for investigation:
 - Is the topic superficial?
 - Does it impact you?
 - Is it current?
 - Is it possible to influence decision-makers for change?
 - Will anyone care about the results of your research?
2. Identify your audience:
 - Who would be interested in hearing the results of your research?
 - What group of people has the power or authority to make changes?
 - Who will you present your results to?
 - Who cares about this topic?
 - Who will be impacted by any changes made regarding the issue?
3. Formulate a question:
 - Is your question confusing?
 - Are the answers to your question predictable?
 - Has your question already been asked and answered recently?
 - Is your question leading?
 - Does your question suggest your own opinions?
 - Does your question suggest that you are hoping for a certain response?
 - Does your question suggest a number of people have already chosen a certain response?
 - Does your question take into account social considerations?
4. Identify the population and select a sample:
 - Whose opinions are important?
 - Who will be affected by decisions or changes that may be made to the current situation? Are these people being included in your sample?
 - How many people should you survey to have a good representation of your population?
 - Does your sample include adequate representation from all the members of that population?
5. Sampling:
 - What sampling method are you going to use?
 - Are there limitations to the sampling method you have chosen?
 - Does your sample represent you population?
 - How will you decide who to survey?
 - Are there people who should not be included in your survey?
 - Have you considered the logistics of your sampling method?

- Have you excluded groups of people because of where you surveyed?
- Have you excluded groups of people because of when you surveyed?
- Have you excluded groups of people because of how you surveyed?
- Have you excluded any groups of people because of:
 - Gender
 - Age
 - Race
 - Religion
 - Culture

6. Data Collection:

- How will you keep the data you collect organized?
- How will you want to sort your data later on?
- Does your body language, facial expressions, or appearance give people any hints about how you feel about the issue?

7. Display the collected data:

- What is the most appropriate way to display the data you have collected?
- How will displaying your data help people to understand the results?
- Does the presentation communicate effectively? Have you used the conventions of graphing appropriately (legend, title, labels, etc.)
- How might your presentation be misleading?
- If you gave your presentation to someone else, would they interpret the results the same way you did?
- Is all the pertinent information visible?

8. Analyze the data:

- Does the data you collected answer your initial question?
- Did/Should you include all the data you collected?
- Do you think there were problems with the project along the way that may be skewing your results?

9. Draw conclusions:

- Do the results suggest some type of action is in order?
- How do the results support or contradict your personal opinion regarding the issue?
- What impact would the change you may be suggesting have?
- Could somebody interpret your results differently? Are the results strong or weak?
- What biases were present throughout?
- Does the data you collected support your recommendation?

10. Report results:

- How can you best share your findings with your audience?