

MDM4U
Big Data Project





Step
1

“THE PREP WORK”

~~due at the same time as your Chapter #1 Assignment~~

- Choose a topic (e.g., a social issue, a sport or hobby, etc.)
- Narrow down your topic to a specific problem (a research question)
- Pose the problem. It must:
 - Be of significant interest to you
 - Involve collecting and organizing data
 - Involve analyzing the data
 - Allow the use of technology, diagrams, etc.
 - Allow the use of one-variable statistics (central tendency, spread, etc.)
 - Allow the use of two-variable statistics (regression, correlation, etc.)
 - Allow you to include some of the following:
 - Probability Distributions
 - Permutations and Combinations
 - Probability
 - Simulations
- Define your Task
 - Develop a hypothesis or thesis statement; this must be something that can (and will) be tested.
 - Research your topic. MUST be properly sourced.
 - Develop a working knowledge about the topic.
 - Provide background information to aid your audience in understanding your topic.
 - Explain why you have chosen this particular topic to your audience.
- If necessary, revise your question based on your research.

Time will be allocated in the course for you to work on your project steps.

However, since the project is independent, work on the project will likely also need to be completed **outside of class**.

You are to explore 'real and authentic' research based on world data; not sample group data.

It is your responsibility to find the data and make sense of it.

Best to use established resources with years of data (ie. StatsCan)

Your book has a giant list of sources! (pg. 3)
Working on getting access to AMPLIFY survey data too

If you need help interpreting, ask for guidance!

What are you handing in?

One page with the following information:

- Your name, course code (MDM4U), date, and the title "Big Data Project Phase 1"
- Contextual information (definitions, history, important facts, research, news...)
- Clearly defined variables (independent and dependent) that are quantitative.
- What relationship you expect to find and why you expect it. (Plan to back it up with research)
- Whose data you are using and how it was collected (if possible)
- Justify a need for this project – why is what you're researching relevant? Why is it important to you?
- Your thesis statement and a brief conclusion
 - > Ex: "These analyses will attempt to demonstrate whether there is a potential relationship between _____ and _____."
- At least three different references

Important!

Plagiarism, whether intentional or not, is considered academic fraud. It is best to be careful and over-cite your work, then to under-cite. Plagiarism consequences in...

High-School: Academic Integrity Workshop, potentially removed from contention of all scholarships at the school.

College/University: Generally, an automatic 0%, with additional penalties up to expulsion and being barred from several universities for several years.

Did you describe your topic with sufficient detail? Did you provide background information and explain why you have chosen this topic?
Did you state a testable hypothesis or thesis statement?
Does your topic involve collecting, organizing, and analyzing the data?
Does your topic involve the use of technology, one-variable statistics, and two-variable statistics?
Does your topic involve some of the other skills taught in this course (probability distributions, permutations and combinations, etc.)?
Did you effectively communicate using proper terminology, graphing skills, and language skills?
Did you complete your assignment on the agreed upon due date?

DUE DATE

Phase 1

Monday Sept. 23