# Method/Analysis

The central section of your writing project will be the Methodology and Analysis of your data. This section should tell the reader *how* you went about doing what you did, and *what* you actually did, statistically speaking. The results of your analysis should be presented, but you will discuss them more fully in the final section, Results/Conclusion

There are three main sections to an analysis:

* Describe the statistical analysis to solve the problem.
* Give reason(s) for your choice of statistical method(s).
  + If the problem requires multistep, list your plan of work and give reason(s).
* The actual statistical analysis of your data

In the introduction, you identified a *problem* and the *significance* of your project, essentially explaining to the reader why you are undertaking this statistical analysis. Now you explain the actual work.

1. Methodology

This may seem like the easiest part, but you cannot just list the steps involved in your statistical analysis. The methodology must still be written in clear prose.

* All variables must be defined, preferably in real world terms.
* Tip: Imagine you are writing this methodology out to the CEO of your startup company, who is an “ideas” person but doesn’t “do math.”

1. Give a reason for your choice of this particular statistical method. This might include:

* Why does this particular data set/real world scenario merits using the method you chose?
* Why are other similar methods not appropriate for your work?
* If there is existing literature about your data set, this would be a good place to review the method those researchers used, and why yours is a different/new approach.
* If there are multiple steps, list a plan of work and give reasons for choosing this plan and these particular steps.

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1. Analysis of data set

Here is where you actually run the statistical analysis on your data set.

* Present your analysis in a logical layout, with prose explaining how you move from step to step.
* When generating tables and graphs, you must explain what all the components are and what the graph shows, using real world terms and not just variables. NEVER assume that the reader can simply understand a graph or table by just looking at it. You must explain its significance.
  + Think about what you are trying to show (in real world terms) and make sure that your graph/table supports that! If not, then you need to go back and rewrite your previous sections to the project.
* This section has a slightly more technical audience, that is, you can use more jargon and mathematical language here. But the lay reader should still be able to understand your method and analysis, even without understanding the math behind it.