# A few tips for writing a report of a data-based study

## **Preliminary steps**

- 0. Outline: Start by writing a few points as reminders of what you want to say. Then sort the points into logical subsets as a draft organization of your report.
- 1. Abstract: Try to re-work the points from "0." above into a short paragraph (perhaps 150 words) to help sort out your main objective with the report.

### **Introduction and Context**

2. Introduction: An introductory section should interest and inform the reader by showing the context of the study and the relevance of the approach taken. It is important to consider the intended readership of the report.

#### **Format**

- 3. Paragraphs: Try to have one main idea in each paragraph. The first sentence should introduce the paragraph. The visual separation helps the reader by identifying when a point has been made, and at the end to expect a new idea in the next paragraph.
- 4. Organization: Use lots of paragraph headings and sub-headings to make the structure of your report clear to the reader. Use bigger fonts for headings, smaller for sub-headings. Bold font can be used for titles and headings; italics are best used for important words, definitions, or a key sentence. However, if italics are used for something that is not most important, it will distract attention from what is most important.
- 5. Margins: Consider the size of margins at sides, top and bottom of your pages. Usually you will number the pages. Sometimes you will have headers and/or footers, if they serve a useful purpose.

#### **Body of the Report**

- 6. Language: Simple words and simple sentences are best when they tell the story. Jargon is useful only if the audience can be expected to know the meaning of it. If the jargon is unnecessary to convey the idea succinctly, it is better to omit it. However, jargon can be efficient and unambiguous when the audience can be expected to know and undersatnad it.
- 7. The Methods and Study Design have to be described. But they are best described in the context of their use in your analysis. A separate methods section is traditional in scientific journals but it can be frustrating for the reader if it is too disconnected with the analysis. It is sometimes best to describe the methods as they are being used, and to describe the results with reference to the methods used. The design is never perfect and

the results are never beyond doubt, so the reader must be encouraged to judge the quality from the report.

- 8. The description of the results is often enhanced using graphs. It is still necessary to describe the main features of the graph in words, but this should be included in brief form in the caption of the graph as well. Ideally, the graph should be self-explanatory. Make note of the size of your graphs. Can the important details be seen? Are they larger than necessary?
- 9. Formulas and Symbols: In a paper in which you are proposing a new method, you would need to include all the mathematical details. But when you are describing what you have done, if it is a standard procedure or one whose method is carefully explained elsewhere, you can save yourself and the reader a lot of time by referencing the method rather than describing it. Most readers of reports of data-based studies will be scientists, engineers, or even less mathematically-inclined, so formulas would be a nuisance. Usually you will need to use words to describe what calculations you are doing (e.g. "We regress Profit on Interest and No.Empl to see ...", or "the variability as measured by standard deviation is 50% larger in the treatment group").

#### **Final Sections**

- 10. The last paragraph or two will usually be either a "Summary" or a "Conclusion". The choice depends on the type of study you are reporting, and the audience. In your assignments, the audience will be specified.
- 11. References: Be sure to use references to support the claims you make. The body includes references as Smith(2005) and the details are included in the References section at the end of the paper. For references and other formatting guidelines, look at the SFU library link to APA formatting

http://www.lib.sfu.ca/researchhelp/writing/citing\_guides/apa.htm

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