How to Write Results and Discussion of Results

Where does it fit? – The results and discussion of results are found after the Introduction and Methods Sections; Introduction, Methods, Results and Discussion (IMRaD). A results section always contains some discussion of the results. In some cases, the results require additional analysis and extended discussion, in this case a separate section entitled "Discussion of Results" might follow the Results section but normally the two sections can be combined.

Before Writing – Make the figures and tables. Determine the uncertainty of the result(s) and the conclusion(s) that can be drawn. Make a list of what the results are saying: trends, maxima, minima, implications.

While Writing – Remember the reader has not seen the data before. Do not focus solely on negative or hard to explain results at the expense of forgetting to present discuss and write about the data that are perceived to be correct.

- *Review the results* – Talk the reader through the results. Use graphs and tables to help with this process. Point out important features in the data. Where are the maxima and minima. Are the data increasing or decreasing, scattered or regular? Are their patterns, trends, or irregularities?
- *Discuss* – Provide context and meaning for the results. Why are the results increasing or decreasing or scattered? What is the uncertainty? Based on the uncertainty, what conclusions can be drawn from the results. How are these results related to previous results, to the background discussion, to the existing literature? What are the implications of the results? Are the results consistent with fundamental laws of science: i.e. conservation of mass, conservation of energy, etc.
- *Conclude* – Draw conclusions from the results and discussion. Make sure the conclusions are supported by facts and are distinguished from supposition.

After Writing – Check the following elements of your writing
- Does the text description match the results (data) shown.
- Is the discussion factual and logical?
- Are table and figures used strategically to present the data accurately?

Easy reading is damn hard writing. But if it's right, it's easy. It's the other way round, too. If it's slovenly written, then it's hard to read. It doesn't give the reader what the careful writer can give the reader.

— Maya Angelou