

## Writing Center Handouts

### Writing Basics for Science Reports

If you remember nothing else: always keep it short and specific. Stick to what your professor wants, regardless of other rules. Ultimately, they know the rules they want you to follow.

#### Basics

- Be consistent (in terminology, in tense, in citations, etc.)
- Write in past tense and use active voice
- Use transitions
- Be simple and precise (no unnecessary qualifiers, no fluff, use names instead of articles, basic but clear vocabulary!). Students have a tendency to be very lofty in science papers.
  - Example:
    - Incorrect: “Based on the fact that the blue mixture became extremely warm, it is suggested that a relationship may exist in close proximity between factors A and B. This supports previously found results...”
    - Correct: “The blue mixture was warm, suggesting a relationship between A and B. This supports previous research (cite research).”

#### Title

- Brief summary of the main ideas (5-12 words long)
- Include specific species or field locations if applicable

#### Abstract

- Short summary of the main ideas found in the lab report
- Include purpose of the study/question being addressed, procedures used, major results of the study, and any conclusions
- Goal is to illustrate the most important ideas from each section of the paper
- Generally between 100-200 words, usually no more than 300 words

#### Introduction

- States the objective of the experiment and provides the reader with background information from previous research
- Establishes the significance of current work
- Moves from general to specific
- Must answer: What is the problem? Why is it important? What solution do you propose?
- Generally ends with hypothesis and supporting information for hypothesis

#### Methods/Procedure

- Using clear paragraph structure, explain each step, in detail, in the order they happened (chronological order)
- Must be detailed enough so that someone reading the section would be able to duplicate the experiment
- Include the materials used, in some cases you may direct reader to a lab manual or standard procedure

- Avoid mixing results with this section

### **Results/Data**

- The goal of this section is to show what you found in the study
- Include a written description of your results
  - Point out trends, patterns, and interesting data and refer to your tables and figures to support these descriptions
  - Be careful not to explain in words what can be read from figures
- Do not interpret or explain results in this section

### **Discussion**

- The goal of this section is to provide a brief summary of your results, relate them to your hypothesis, and place them into context within the field of research
- Begin with stating if your results support or reject your hypothesis (never use “proved”)
- Interpret and compare results
  - Summarize trends, patterns, principles and relationships
  - Compare these results to other studies and use literature to support your argument
- Discuss factors influencing results
  - Any errors, inconsistencies, assumptions, or other factors that could have influenced your study
- Discuss how your results contribute to existing research. Why was this study important?
  - Suggest theoretical and practical applications
- Propose ideas for future research

### **Citations**

- No formal way to cite scientific writing – varies among journals and professors so ask and check your style guide
- The lab manual for Bio 141 gives specific format (called name-year format)
- Give the author and YEAR OF PUBLICATION in any in-paragraph citations. Do not give page number as it varies among journal editions.
  - Referred to as “name-year” method of citation

### **Other Help**

- If you need more help, ask your professor, consult your style guide, come to the Writing Center satellite in Sage Hall, and try this website:  
<http://www.biochem.arizona.edu/marc/Sci-Writing.pdf>  
<https://www.trentu.ca/academicsskills/how-guides/how-succeed-math-and-science/writing-lab-reports>