

Brief Guidelines for Writing a Scientific Report

Written reports summarizing scientific findings generally follow this format:

Introduction

- Provide the general background for the study. What general idea(s) related to the appropriate field of science were being investigated? What was the main focus of the study?
- Give a description of the species that were studied. When using Latin names, remember **the genus name is capitalized, the species name is not. Also, both should either be underlined or in italics.**
- State the question, hypothesis, or hypotheses being tested and the independent and dependent variables. When relevant, explain the reasoning behind each hypothesis.

Methods

- Write in sentence/paragraph format. Do not give a list of directions.
- Explain what you did in enough detail that someone else reading the report could repeat what you did. I recommend using the first person, past tense. For example, "We measured shoot length by . . ."
- Describe where the study took place.
- You need to describe your methods of data collection **and** the statistics and/or graphs you used to interpret the data. If you do a statistical test using computer software, you need to state the name of the test and the software. You do not need to include the steps that were taken in order to use the software.

Results

- Be sure to describe your results in sentences/paragraphs. **Do not simply state "Results shown in Figure 1".**
- Describe each result in sentences. Typically, it will take a paragraph to describe the results shown in each figure or table. When a figure and table go together (are based on the same data), you can include one paragraph for that result beginning with a description of the figure and what the figure shows, then report what the statistical test says about those data. The length of the paragraph will depend on how complicated the result is and how concise your writing is. The reader should understand the result by reading this section even if the reader does not look at the figure or table.
- There are two possible ways to refer to figures or tables: "Table 1 shows the results of a t-Test indicating . . ." OR "A t-Test comparing . . . confirmed that the differences between the means was statistically significant (Table 1)." Back up your general description of a result with detail. "For example . . ."

Discussion

- Did the results described in the result section answer your question, support your hypothesis, disprove your hypothesis, or were they inconclusive?
- Give a biological/ecological explanation for your results. **This is the most important part of the discussion.**
- If there were any problems with the study (accuracy of data, problems with methods, etc.), describe them in the discussion section.

Tables and Figures

- When preparing a study to submit to a scientific journal, include the figures and tables at the end of the paper on separate pages. In MS Word, the shortcut ctrl + enter will add a page break at the end of your document.
- Anything with rows and columns is a Table. Any graph, picture or drawing is a Figure. Number them consecutively (Table 1, Table 2, etc., then Figure 1, Figure 2, etc.), and be sure to give each Table or Figure a title. Table numbers and titles go above the Table; Figure numbers and titles go below the Figure.

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