



## SWC 6: Components of a Lab Report

Lab reports generally follow a standard format with specific sections, each with a clear purpose designated by an appropriate heading. These sections are usually presented in the order below.

### Abstract

The abstract is a short, one-paragraph summary of the report that emphasizes the problem addressed by the study, the reason the problem needs to be addressed, the major components of your research and methods, and the most important results and conclusions of study. If you are required to include an abstract with your lab report, you should probably wait to complete it after you have finished all other components.

### Introduction

The introduction is a section of that outlines the major problem addressed by your study and why the study was undertaken. This is also where you will describe any relevant background information, review any existing literature on the topic, and explain specific hypotheses your study is designed to test.

### Materials and Methods

The materials and methods section serves as a detailed description of the study and your methods in conducting it. This should be detailed enough that another person could read it, repeat your procedures, and hopefully obtain the same results; therefore, you should include all important elements of your activities, including timeframe, number of subjects, any equipment used, methods of measurement, and so on.

### Results

The results section contains all of the data collected in your study and is possibly the most important section of the report. This section usually contains graphs and charts displaying your findings, accompanied by brief paragraphs explaining the graphs and analyzing the data. This is not, however, the place to offer conclusions based on the data you collected; save that for the discussion section.

### Discussion

The discussion section is where you can offer an interpretation of your results, arguing for a particular conclusion based on the evidence you have collected. This section is where you want to discuss the success or failure of any hypotheses proposed in the introduction.

### References

No research paper is complete without a list of references, and lab reports are no exception. Here you will list in the appropriate format (often APA for scientific papers) each article or other source you referenced in the lab report. Be sure to accompany your use of these sources with in-text citations throughout the document.

Use the lab report checklist on the back for help composing your lab report:



## Lab Report Checklist

Before submitting your lab report, ask yourself if your report contains each of the necessary components and if those components meet the following expectations:

### Abstract

- Does my report contain a one-paragraph abstract?
- Does it clearly state the problem addressed by the study?
- Does it summarize the contents of the report, including research methods and the most important conclusions?

### Introduction

- Does the introduction outline the major problem of this study?
- Does it explain why the study is important?
- Does it provide all relevant background information necessary for my audience to understand the topic?
- Does it clearly outline the hypothesis being tested?

### Materials and Methods

- Does this section offer a detailed description of the methods used to conduct the study?
- Does this section provide the reader the necessary tools to perform this procedure, including: timeframe, number of subjects, equipment used, methods of measuring, etc.?

### Results

- Does this section present the data collected in my study?
- Are graphs and charts present that effectively display my findings?
- Are visual representations accompanied by written explanations of what is being represented?

### Discussion

- Does this section offer interpretations of my data and results?
- Does it clearly argue for my conclusion, reflecting on specific data when appropriate?
- Does it specifically address the hypothesis outlined in the introduction and its success or failure in the study?

### References and Formatting

- Are in-text citations used throughout the report to indicate specific use of sources?
- Have all references used in the report been appropriately cited on a references page?
- Does my document meet the requirements of the appropriate format (often APA for scientific writing)?

**Visit the Writing Center for more help on your writing project! Stop by LIB 362 or visit us online at [mtsu.mywconline.com](http://mtsu.mywconline.com) to schedule an appointment.**