

UNIVERSITY OF UTAH
ELECTRICAL AND COMPUTER ENGINEERING DEPARTMENT

ECE 2000

Guidelines for Writing a Conclusion

1. Conclusion Overview

This section should present overall conclusions relating to the original purpose of the study, as well as any recommendations. Be specific.

- Write at the level of your intended audience. For this course, assume your audience is engineering students about to start the lab assignment. Give them information that will save them time doing the lab.
- Whereas the "Results and Discussion" section discusses the results individually, the "Conclusion" section discusses the results in the context of the *entire* experiment.
- *List* conclusions in order of importance and *link* them to information in previous sections of the report, like the introduction. Usually, the objectives mentioned in the "Introduction" are examined to determine whether the experiment succeeded. In other words, in the introduction you said what you expected to observe. Now, tell if you observed it.
- If the objectives were not met, you should *analyze* why the results were not as predicted. Also *discuss* any other observations that might have been unexpected. If something is not what you expected, *explain* why this might have happened.
- Give the SIGNIFICANCE of your observations.

2. Example (Edited from an original quote)

In this lab, we designed, prototyped, and tested a single stage amplifier that was supposed to have a gain of 10 dB for a wireless communication system operating at 400 MHz. The amplifier achieved a gain of 9 dB, which is 1dB less than the design specification. This implies that we will need to have a gain of 1 dB in excess of the design specification when we design the filter. If the design fails to make up for this lack of gain in other areas of the circuit, the system is expected to transmit 10 feet less than the design specification.

3. A Second Example

This report has discussed the development of a temperature measurement and display system. The objectives of this lab were to develop the necessary hardware and software to have the HC11 measure temperature and indicate whether that temperature fell outside of prescribed limits. Both objectives were met. In the lab, a resident A/D converter allowed the HC11 to access two analog inputs of temperature from a remote computer. By keeping track of the measured temperature, the HC11 was able to control an LED temperature display via ten binary, tri-state outputs. Also, if the temperature became very cold or hot, the HC11 sent an alarm message to a host PC's serial port.

Resource: <http://www.writing.eng.vt.edu/workbooks/labreport.html#conclusions>.