

# How to Write an Analysis in Science

## What is an Analysis?

After you've gathered all of your data, you'll want to analyze your results. In the analysis, ask yourself, "What are the data telling me? What trends do I see in my graphs? Are the data for the control group different than the data for the experimental group?"

**What Does It All Mean?** If your results are mathematical, it will help you to understand the concepts of *mean* and *median*. Mean is the average of your data, and median is the middle-most value when all measurements are listed in order from smallest to largest. Two experiments may have the same average result but differ in how the results are distributed. Compare the means and medians and see how they differ.

## Ways to improve my Analysis:

Review the grading rubric below for the difference between accomplished, developing, and not met.

	Accomplished	Developing	Not Met
Analysis	I, the researcher, clearly stated the data collected, explained average, and trends from the investigation.	I, the researcher, stated the data collected from the investigation.	I, the researcher, did not state the data collected.

## Analysis samples with Mrs. Weimer's feedback

1. According to my experiments, the Energizer maintained its voltage (dependent variable) for approximately a 3% longer period of time (independent variable) than Duracell in a low current drain device. The Energizer maintained its voltage for approximately 10% than the Duracell for the medium drain device. The Energizer maintained its voltage for approximately 29% longer than Duracell for a high drain device. Overall, Energizer out performs the Duracell in all three drain devices.
2. According to my experiments, the Energizer maintained its voltage longer period of time than Duracell in a low, medium, and high current drain devices. Overall, Energizer out performs the Duracell in all three drain devices.
3. The Energizer battery works better than the Duracell battery.

**Comment [JW1]:** Rating of Accomplished. The data collected has been clearly stated and trends have been explained. The reader can understand the information gain in this experiment.

**Comment [JW2]:** Rating of Developing. The findings are presented but no data is used to support the claim.

**Comment [JW3]:** Rating of Not Met. The findings are not identified using data. Trends are not presented.