

Research Reports

Research reports describe and discuss original research investigations. Though you may incorporate the research or opinions of others into a report, the primary purposes are to explain what you did to solve a problem or answer a question and to analyze your results. Often instructors will assign reports to teach you how to write for a particular journal or discipline. Before you begin your research, find out what your instructor expects you to present in your report and what format, if any, your instructor requires.

Content and Order of Formal Report Sections

Abstract: Briefly summarize your research problem, hypothesis, methods, major results and conclusions.

Introduction: State the purpose of your investigation, your reasons for conducting the investigation, and your thesis or hypothesis (and alternate hypothesis, if applicable).

Review of the Literature: Summarize and discuss what others have done in your research area. It is very unlikely that you are the first or only person to investigate the topic. Tell your reader how your own research complements, continues, or improves upon the work of other researchers. If you are borrowing someone's techniques or using someone's results, you must acknowledge the source.

Experimental Design/Methods: Detail the steps you followed to obtain your results. Exactly what kind of equipment did you use? Under what conditions? Good science is replicable, so be as specific and precise as possible.

Results: Summarize and state your results. This is limited to factual statements (analysis comes later) and is often supplemented with graphs, tables, charts, and diagrams.

Interpretation/Discussion/Analysis: After you have given your objective results, tell your reader what they mean. Most facts or data can be interpreted in more than one way; numbers by themselves do not mean anything. Explain to your reader how the results support or fail to support your hypothesis and what may have caused any particular or unexpected results.

Conclusion: State concisely what you have discovered as a result of your research—the confirmation or disqualification of your hypothesis. If your hypothesis has not been upheld, you may want to suggest a modified version that could be tested later. You may also want to discuss the implications of your conclusion. If the hypothesis is true (or not true), what does that indicate about other issues or related problems? What further research is necessary? What can other researchers do to add to the body of knowledge about the problem?

References: At the end of your report, you need to give complete bibliographic citations for all the sources you refer to in previous sections. Use the citation format that your instructor recommends.