

Conclusion

The conclusion is the most vital part of your paper. Essentially, it is a report on “what happened?” It interprets your experimental results in light of what was already known about the subject and explains the new understanding of the problem after taking your results into consideration. Explain your results *scientifically*. Explain why your results do or do not support your original hypothesis. This hypothesis is not the same as your null and alternative hypothesis in your data analysis.

Begin the conclusion with a brief summary of your research project: how you did your experiment, your preparation, and testing. Restate your original hypothesis and what you proved in your research with an appropriate statistic or percent error. Your conclusion must be supported by your experimental data. Account for all of your data. State the implications of your study to the scientific community and explain how your study will affect future research in the area. If your hypothesis and experiment are similar to others, establish the originality of your work and results. Accuracy in the conclusion is imperative. Future students may use your results as a reference point in their own research.

The conclusion needs to be connected to the literature you cited. Tell whether your results agree or disagree with current work in the field. Your interpretations of your findings must be supported by the established and published findings of others in the field. Discuss similarities and differences between your findings and others’ findings. Consider how the results of the other studies may be combined with yours to derive a new or perhaps better substantiated understanding of the problem. Remember, do not introduce unrelated concepts or ideas in the conclusion.

Make sure to discuss how well each aspect of your experiment contributed to your project and mention what (if anything) you would do differently if you had to repeat the experiment. Discuss any design weaknesses and any sources of error (besides human error) and how these factors affected the results of your project.

Discuss further research you would do to clarify your working hypothesis by describing steps that should be taken to refine it. Explain how further work would enhance the knowledge in your area of study. As you close, state the value of your research and describe its potential benefits to society at the human level. By the time you reach the end there should be no questions in the reader’s mind as to the veracity of your claims and the need for future research in your area of study.