

Research Presentation Guidelines

Presentation in brief: The presentation is a group project. Think of this as a visual version of your paper. The presentation should include: a short intro, your hypotheses, a brief description of the methods, tables and/or graphs related to your findings, and an interpretation of your data. **The presentations should be no more than 10 minutes long.** That's not much time. Plan on needing about 1 minute per slide. The trick to giving good presentations is distilling your information down into a few bulleted lists, diagrams, tables and graphs. You don't want to be rushed while presenting.

Title slide (1 slide). Title of the talk (probably the same as your paper), the names of all group members, the class and university names, and the date the talk is given.

Introduction (typically 3-4 slides). Explain why your work is interesting. Place the study in context – how does it relate to / follow from the scientific literature on this subject. If it relates to any applied issues (e.g., environmental problems), mention this here. Use some pretty visuals (photographs, drawings, etc.) to get the audience excited about the issue and questions you are addressing. Clearly state your hypotheses.

(4 points)

Materials and Methods (typically 2-3 slides). Clearly summarize the design. Show a picture of your organisms and justify why they are appropriate for addressing the questions mentioned above. Show a picture of your lab setup and/or of a person doing some of the lab work. Show a diorama of your experimental design (with sample sizes, number of replicates, sampling frequency, etc.). Mention what parameters you measured but do not go into detail on exact procedures used. Do state what statistical tests you used to analyze your data.

(2 points)

Results (typically 2-4 slides). First show a photograph (or sketch) that shows an interesting qualitative results (e.g., trays of plants in which one set is noticeably bigger than the other, a drawing of a happy *Daphnia*) and state that result. Then display the results in graphical form, reminding the audience of your hypothesis and stating whether it was supported as you do so. Use simple, clean, clearly labeled graphs with proper axis labels (no extraneous 3-D effects please). Do not use light colors (yellow, light green, or pink) in your figures, they do not show up well when projected. Indicate the results of the statistical tests on the slides by including p-values (or asterisks/letters that indicate the significance level) on the same slides with the graphs. If you have multiple results, state them in a logical order.

(5 points – good graphs are a big part of this!)

Implications and Conclusions (typically 2-3 slides). Correctly interpret your results. Constructively address sources of error and methodological difficulties. Place your results in context and draw implications from them.

(4 points)

Acknowledgments (1 slide). Thank anyone who provided advice or assistance. Verbally thank your audience for their attention and tell them you would be happy to answer any questions.

For more advice on preparing a research presentation, see
<http://www.swarthmore.edu/NatSci/cpurrrin1/powerpointadvice.htm>