How to plan for a great presentation   May 26, 2012

Here are a few tips and bits of advice to consider when planning your project presentation:

(1)   This is a short project. Do the best with the available time, and don't stress out.

(2)   Motivate your topic – use the first few minutes to explain the biological significance, and why it is interesting and/or important. You may want to explicitly state one or more scientific questions to consider (and then return to these at the end of your talk and show how you have addressed those questions.)

(3)   Before making slides or starting to put together your talk, create a little outline that will help you organize the logical flow of the talk. Outlines are best constructed by starting with main categories and filling in details in successive stages. See next page for samples.

(4)   Use your outline to first create basic slides that just contain the main points, logically organized. Leave the amazing graphics and visuals (very time consuming) to a later round. A logical, well organized talk, and sane amount of sleep is better than a glitzy but poorly organized talk.

(5)   A good slide should contain no more than 20 words max. If you have more to say, use more slides. See samples next page. Use short point-form phrases rather than full sentences. Listening (to you speak) and reading long sentences makes it hard for a listener to follow.

(6)   It can be helpful to practice your talk and to think about what to say and how long it will take. (Going over time is one of the main "DON'T's" of public speaking.)

(7)   Public speaking can be a scary prospect, but I've found that the following tip helps. Keep thinking about how you will explain your work and ideas, and how to communicate effectively. This takes the focus away from being anxious.

(8)   Come to the project presentations prepared to ask good questions and participate in making for a great learning atmosphere.

Appendix I: Sample outlines:

Outline (0):
Introduction
Biology
Model
Analysis
Simulation
Discussion/Conclusions

Outline (1): [**Notice how details have been filled in**]

Introduction
What is Type 1 Diabetes
Who is affected, symptoms
What are current treatments, challenges
How can Modeling help
Specific question I will address
Biology
Types of cells involved
Role of macrophages, T cells
Autoimmune response
Refined question
Model
Definitions
Equations and explanation
Inclusion of special terms
Analysis
Steady states
Scaling
Results
Simulation
What was done
Cases considered
Results
Interpretations
Discussion/Conclusions
Short summary of above
Answers to questions posed
Significance of results
Broader context

Outline (2):   An even more detailed list of points, breaking down above categories to specific points you'd make in your talk.

Appendix 2: Good and Poor slides (Examples)

Poor slide (too verbose):

Type 1 diabetes is an autoimmune disease that affects mostly children between the ages of 4 and 20. It is believed to be initiated by some immune response that might result from a viral infection. The immune cells that kill virus infected cells might also start to attack the insulin-producing beta cells and this leads to beta cell death and loss of ability to metabolize glucose effectively. To model this disease I will consider how the population of T cells and beta cells change during the autoimmune attack.

Better (point form): [You supply the full sentences in your verbal explanations]

Type 1 diabetes

- Autoimmune disease
- Affects children (mainly ages 4-20)
- Caused by T cells targeting beta cells
- Possible trigger: viral infection
- Model: T cells and Beta cells