

Communicating Your Science

In your final writing assignment, you will write about your research project. This is meant to help you write your presentation. The requirements of this assignment are pretty light, so it shouldn't take more than a class period to do.

Group Research Presentations

It's time to share! We'll be giving each other **practice presentations in class on Wednesday, December 3**. You should have your talk ready then. This presentation will be done with your research partner, if you have one. You both can choose how to divide up the talking, but the total presentation will be 5-8 minutes plus two minutes at the end for questions. **The final presentations will be to the entire Astronomy department on December 5, during class time in C520.**

For this assignment, you are to write three pieces:

1. An elevator pitch (under 100 words)
2. A one-floor elevator pitch (1 sentence)
3. Explain your research (or what you've done and why) to someone who doesn't know any science (no word limit)

Due Monday Dec. 1 by the beginning of class

1. The Elevator Pitch

An elevator pitch is a concise explanation of what you're doing and why to peak someone's interest in the time span of a short elevator ride (I find they are useful at family gatherings). Randy Olsen explains in his book "Don't be Such a Scientist" that an elevator pitch should follow basic structure of a story:

Set up your subject (first act) give it a twist at the end of the first act (first plot point) reveal a possible solution (second plot point) and then weave all the content together to release the source of tension (third act)

"I study a star fish on the California coast – the only species that spawns in the dead of winter. I thought it might be due to predators of the eggs being less common that time of year, then I thought it was due to the best timing for the spring algae bloom, but now it looks like it has something to do with the seasonal migration of the starfish, which is what I now study—the way spawning season may be related to adult movements of starfish."

"Starfish on the California coast" is the first act set up. "The only species" is the establishment of tension (sets up the question "Why is it different"). "Predators" and

“algae bloom” are the multiple themes in the second act. “Seasonal migration” is the release of tension and “What I now study” is the wrap-up

2. One-line elevator pitch

These are also called “sound bytes” they are important as well when you get interviewed. How do you boil down your research into one sentence? Here’s another example from Randy Olsen:

I study one species of starfish that spawns in the dead of winter instead of during the spring season.

It’s enough to establish the tension (why is this starfish different)

3. Describe your research to someone who doesn’t know any science.

This is free form writing. You can use your creativity to explain your research. The only constraint is that you must use one analogy to relate what you do to something everyone already knows.

For example, if I studied the accretion of planetesimals that build up into planets, I could compare accretion to the building up of dust bunnies. It’s not a perfect analogy, but it gets the slow random motions into the person’s head and everyone knows what dust bunnies are.

You may find this website helpful. It screens out all but the top ten hundred (1000) words in the English language, so it can tell you if you are using too many big words.

<http://splasho.com/upgoer5/>

This is inspired by this XKCD comic, which describes the Saturn V (hence, “Up Goer 5”) rocket of the Apollo program using only the most common 1,000 words:

<https://xkcd.com/1133/>