Preparing posters and slides for scientific presentations (POSTER)

Nov. 10th 2014
"Academic" Salaries

Actual average and median salaries at U.S. Doctoral-granting Universities

Notes: Administrator figures are medians salaries, the rest are averages. All figures in 2008 dollars. Sources: College and University Professional Association for Human Resources 2005 Survey; American Association of University Professors 2007 Survey; The Chronicle of Higher Education 2001 Survey of Graduate Assistants; USA Today Survey of Div. I-A College Football Coaches Compensation 2007.
Introduction
Your reader was mildly intrigued by the title, but you have exactly two sentences to hook them into your presentation. Don’t make the opening boring by mumbling through the components. You might want a large map with lines, graphs or key points on all posters with supporting graphs on right. Be sure to separate figures from other figures by generous use of white space. When figures are too cramped, viewers get confused about which figures to read first and which legend goes with which figure. Confused content just looks bad, so. The big thing to remember is that a Results section on a poster does not need to look like a Results section on a manuscript, so feel free to be creative.

• If you can add small drawings or icons to your figures, do so — these visual cues can be placed aids in orienting viewers. Use colored arrows or callouts to focus attention on important parts of graphs. You can even put text annotations next to arrows to help readers what’s going on there’s meaning in relation to the hypothesis test. E.g., “This outlier was most likely caused by contamination when I sneezed into tube.” Also, don’t be afraid of using colored connector lines to show how one part of a figure relates to another figure.

Materials and methods
Few people really want to know the gruesome details of what you’ve been up to. So be brief. And be visual. Use a photograph, drawing, or flow chart if possible, supplemented with only the most critical or important details of your procedure. If you can somehow attach an object, an iPod, etc., that can involve viewers in active way, do so. Refer to the companion website (see bottom right section) for more ideas if you are creatively challenged.

Figure 1. A catchy photograph can help lure people to your otherwise boring poster. Yes, I added my life getting this shot.

Results
The overall layout in this arena should be visually compelling, with clear cues on how a reader should travel through the important parts of graphs. You can even put text annotations next to arrows to tell reader what’s going on that’s interesting in relation to the hypothesis test. E.g., “This outlier was most likely caused by contamination when I sneezed into tube.” Also, don’t be afraid of using colored connector lines to show how one part of a figure relates to another figure. Figures are preferred but tables are sometimes unavoidable, like death. If you must include one, go to great efforts to make it look professional. Look in a respected journal and emulate the style. Draw figures nice as an object. Use colored or arrows to draw attention to important parts of the tables.

• Paragraph format is fine, but use bullet lists of results: 9 out of 12 braininjured rats survived

• Braininjured mean ± s.e.

• Control rats completed maze faster, on average, than rats without brains

This sample results section is way too wordy, in case you are above 1000 words, your poster will be avoided.

Acknowledgments
We thank I. Güör and E. M. Stone for greenhouse care. Funding for this project was provided by the Department of Thinking. [If you want to cluster your poster with annoying logos, shrink them down so that they can fit inside this area without smooshing text too much. Note that people’s titles are omitted...titles are TML].

Further information
More tips can be found on “Designing conference posters,” at http://colinpurrington.com/tips/academic/posterdesign. Note that URLs should always be stripped of any automatic hyperlink formatting (right-click, then “remove hyperlink”).

http://colinpurrington.com/tips/academic/posterdesign
Poster: Content

- Provide brief statements of introduction, method, subjects, procedure, results, and conclusions.
- Ask yourself:
  - Have you provided all the obvious information?
  - Will a casual observer walk away understanding your major findings after a quick perusal of your material?
  - Will a more careful reader learn enough to ask informed questions?
  - What would you need to know if you were viewing this material for the first time?
Poster: Clarity

- Use large fonts and limit text to essential information.
- Place your major points in the poster and have the nonessential, but interesting, sidelights for informal discussion.
- Keep content simple and communicate clearly.
- Consider whether the sequence of information is evident.
- Indicate the ordering of your material with numbers, letters, or arrows when necessary.
- A picture’s worth a thousand words.
- Make your final conclusions or summary a concise statement of your most important findings.
**ABSTRACT:**
One ignored benefit of space travel is a potential eradication of obesity, a chronic problem for a growing majority in many parts of the world. In theory, when an individual is in a condition of zero gravity, weight is eliminated. Indeed, in space one could conceivably follow ad libitum feeding and never see gains on an om. And the only side effect would be the need to upgrade one’s resistance tourist overalls. But because main diet schemes start as very good theories only to be found out to be rather harmful, we tested our predictions with a long-term experiment using a colony of Guinea pigs (Cavia porcellus) maintained on the International Space Station.

Individuals were housed separately and given unlimited amounts of high-calorie food pellets. Fresh fruits and vegetables were not available in space so were not offered. Every 30 days, each Guinea pig was weighed. After 5 years, we found that individuals on average, weighed nothing. In addition, a weight gain would be gained over the duration of the protocol. If space continues to be gravity-free, we believe that this outcome is sound, and we believe that sending the overweight — and those at risk for overweight — to space would be a lasting cure.

**INTRODUCTION:**
The current obesity epidemic started in the early 1980s with the invention and proliferation of elastane and related stretchy fibers, which reassured women from the rigid constraints of clothes and permitted monthly weight gain without the need to buy new outfits. Indeed, exercise today for hundreds of millions people involve only the act of wearing stretchy pants in public, presumably because the constriction of pressure forces fat molecules to adopt a more compact terry-like structure (Kurz, 1965).

Luckily, at the same time that fabrics became stretchy, the rice to the moon between the United States and Russia yielded a useful fact: gravity in outer space is minimal to nonexistent. When gravity is zero, objects cease to have weight. Indeed, early astronauts and cosmonauts had to secure themselves to their ships with seat belts and sticky boots. The potential application of weight loss was noted immediately, but at the time travel to space was prohibitively expensive and thus the issue was not seriously pursued. Now, however, multiple companies are developing cheap, extra-terrestrial travel options for normal consumers, and potential travelers are also creating new ways to pay for products and services that they cannot currently afford. Together, these factors open the possibility that moving to space could cure overweight syndrome quickly and permanently for a large number of humans.

We studied this potential by following weight gains in Guinea pigs, known on Earth as fond of ad libitum feeding. Guinea pigs were long envisioned to be the “guinea pig” of space research, too, as they seemed like the obvious choice. Studies on humans are of course desirable, but we feel this current study will be critical in assessing the attention of granting agencies.

**CONCLUSIONS:**
Our view that weight and weight gain would be zero in space was confirmed. Although we have not replicated this experiment on larger animals or primates, we are confident that our results would be mirrored in other mammalian organs. We are currently in the process of obtaining necessary human trial permissions, and should have our planned experiment initiated within 80 years, pending expedited review by local and Federal IRBs.

**ACKNOWLEDGEMENTS:**
I am grateful for generous support from the National Research Foundation, Black Hole Diet Plans, and the High Fructose Sugar Association. Transport flights were funded by SPACE-EXES, the consortium of wise investors from nascent wealthy space-flight startups. I am also grateful for comments on early drafts by Mifansa Athletic Club, Corpus Christi, USA. Finally, sincere thanks to the Cry Foundation for generously donating animal care after the conclusion of the study.

**LITERATURE CITED:**

**MATERIALS AND METHODS:**
One hundred male and one hundred female Guinea pigs (Cavia porcellus) were transported to the International Space Laboratory in 2010. Each pig was housed separately and deprived of exercise wheels, and fresh fruits and vegetables for 48 months. Each month, pigs were individually weighted by duct-taping them to an electronic balance sensitive to 0.0001 grams. Back on Earth, an identical cohort was similarly maintained and weighed. Data was analyzed by statistics.

**RESULTS:**
Mean weight of pigs in space was 0.000 g +/- 0.000 g. Some individuals weighed less than zero, some more, but these variations were due to reaction to duct tape, we believe, which caused them to be alarmed push briefly against the force plate in the balance. Individuals on the Earth, the control cohort, gained about 240 g/month (p = 0.003). Males and females gained a similar amount of weight on Earth (no mass effect of sex), and size at any point during the study was related to starting size (which was used as a control group ANCOVA). Both Earth and space pigs developed substantial dewlaps (double chins) and were lethargic at the conclusion of the study.
Support for designing posters on large paper

Compile `a0poster` class files as follows.

```
latex poster
bibtex poster
latex poster
latex poster

dvips -P a0 poster -o

gv poster.ps
```
a0poster (contd)

- Dividing the poster into columns
  - Use package “multicol”
  - Use the “minipage” environment
Adding some colors

- Include two packages
  \usepackage{pstricks,pst-grad}

- Use syntax
  \newrgbcolor{colurname}{r g b}
  where \( r, g, b \) are numbers between 0 and 1 that express the quantity of red, green and blue. For example,
  \newrgbcolor{lightviolet}{0.8 0.3 0.7}
Printing Posters

- You need to submit your poster through https://bels.soe.ucsc.edu/posters
- Go to http://bels.soe.ucsc.edu/PosterGuidelines for guidelines (and restrictions!)