Poster Design

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Agenda

- Handout
- Introduction
- Layout
- Text
- Color
- Graphs/Pictures
- Inclusions
- Activity
- Conclusion
INTRODUCTION

■ Advantages of Posters
  ■ Allow students to practice scientific communication
  ■ Students can learn from classmates
  ■ Focus is on data rather than writing skills
  ■ Can be viewed publicly and leisurely outside class time

■ Previous Strengths of Posters
  ■ Strong sectioning (Intro, methods)
  ■ Inclusion of most major elements (abstract, summary)
  ■ Inclusion of handouts

INTRODUCTION

- Previous weaknesses of posters
  - Too much background detail
  - Failure to discuss implications
  - Small font size
  - Confusing tables or graphs
  - Poor overall organization

(Welch & Waehler, 1996).
Use headings to help readers find key sections.

Balance placement of text and graphics.

Use white space to define flow of information.

Follow reader gravity that pulls eye from top to bottom, left to right.

Column format makes for easy reading. Most posters are 4 columns wide.
Minimize text
  - Keep text in blocks of no more than 50-75 words
Use bullets instead of full sentences
Text is usually single spaced
Avoid technical jargon depending on audience
Use sans-serif font (Arial or Helvetica) for text
All text should be large enough to read from 1-2 meters
  - Use at least 20-point type for text and 48-point type for the title
Titles should be of larger text
Bold text can be used to highlight general conclusions

COLORS

- For optimum readability, best to use black text on a white background
- Use a light background and dark letters for contrast
- Keep lots of empty white space to enhance effect of colored sections
- A dark background with light letters is very tiring to read and induces eye strain
- Empty space between sections could be a solid color other than white
- Avoid patterned backgrounds as they are distracting
COLORS

- Bright colors attract attention but are distracting
- Choose two or three colors and keep them consistent throughout poster
- Use color to highlight key words
- Use strong, primary colors such as red, blue, and yellow
- Red has very high visibility
- People who are color-blind find it hardest to distinguish between red and green
GRAPHS/ PICTURES

- Graphs should communicate relationships quickly
- Graphs should be simple and clean without gridlines
- 3-D graphs and pictures are distracting, stick to simple 2-D images
- All text in figures uses same style font and shouldn’t vary by more than 4 points in size
- Figure captions are descriptive
Figure 1.2. Mean mood positivity as a Function of types of hues
INCLUSIONS

- Reference lists are often presented in a smaller font than the rest of the text.
- The reference list sometimes can be left out if space is insufficient.
- Handouts that are similar to the poster can be given to the audience so they can follow along during the presentation.
A Framework for Assessing the Condition of Agricultural Lands

George Hess¹, Anne Hellkamp², Mike Munster³, Steve Peck³, Lee Campbell³, Betty McQuaid³, Steve Shafer³,⁵

Mission: To develop indicators of the condition of agricultural lands within an ecological framework, and to monitor and evaluate this condition on a regional basis.

GOOD
- Colorful graphics
- Very attractive
- Concepts and themes defined
- Good mix of text and graphics.

BAD
- Organization unclear
- Difficult to follow.

Potential Indicators for Annually Harvested Herbaceous Cropland

As a starting point, we chose to concentrate our efforts on developing indicators for annually-harvested herbaceous crops—land planted with crops that are harvested every year, whether the plants are annual or perennial. Common examples are corn, wheat, soybeans, alfalfa hay, and strawberries.

We also endeavored to supplement, rather than duplicate, existing efforts. Our conceptual framework is flexible enough to incorporate indicators based on data from other monitoring efforts. For example, an erosion indicator could be developed using the USDA Natural Resources Conservation Service’s Natural Resource Inventory data.

Good mix of text and graphics.
GOOD

- Colorful graphics
- Font size easy to read
- Key points identified and titled
- Good mix of text and graphics.

BAD

- Figure 2 comes before Figure 1 (reader gravity)
- Graph is too distracting with gridlines
GOOD
- Large Title

BAD
- Too much text
- No pictures
- Writing too small
- This problem is often seen at conferences
Southern Flounder Exhibit Temperature-Dependent Sex Determination
J. Adam Luckenbach*, John Godwin and Russell Broski
Department of Zoology, Box 7617, North Carolina State University, Raleigh, NC 27695

Introduction
Southern flounder (Paralichthys dentatus) support valuable fisheries and show good promise for aquaculture. Female flounder are known to grow faster and reach larger adult sizes than males. Therefore, information on sex determination that might increase the ratio of female flounder is important for aquaculture.

Objective
This study was conducted to determine whether southern flounder exhibit temperature-dependent sex determination (TSD), and if growth is affected by rearing temperature.

Methods
- Southern flounder broodstock were stripped and fed to maximum egg and sperm for in vitro fertilization.
- Hatchlings were reared from a mixed diet of commercial feed (10% protein, pelleted feed) and live brine shrimp at least twice daily.
- Upon reaching a mean total length of 40 mm, the parent flounder were stocked at equal densities into one of three temperature (18, 23, or 28°C) for 248 days.
- Triplicate groups were preserved and then sectioned at 2-4 mm.
- Sex-determining markers were used to distinguish males (gonadal testes) from females (ovaries).

Histological Analysis

Temperature Affects Sex Determination

![Graph showing the effect of temperature on sex determination.]

Results
- Sex was discernible in most fish greater than 100 mm long.
- High (28°C) temperature produced 4% females.
- Low (18°C) temperature produced 22% females.
- Mid-range (23°C) temperature produced 44% females.
- Fish reared at high or low temperatures showed reduced growth compared to those at the mid-range temperature.
- Up to 325 days, no differences in growth existed between sexes.

Conclusions
- These findings indicate that sex determination in southern flounder is temperature-sensitive and temperature has a profound effect on growth.
- A mid-range rearing temperature (23°C) appears to minimize the number of females and promote better growth in young southern flounder.
- Although adult females are known to grow larger than males, no difference in growth between sexes occurred in age-0 to 1 year southern flounder.

Acknowledgements
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Conclusion

- A poster is simply a large-format presentation of an otherwise written up paper, but...
  - Allows for creativity
  - Is a visual form of displaying one’s findings.
- Ultimate goal of the poster
  - Viewers to understand the topic and subject matter being displayed.
A GUIDE FOR EFFECTIVE POSTERS
Katherine Wisener
Kwantlen Polytechnic University

LAYOUT
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TEXT
- Minimize text use bullets instead of full sentences
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- Avoid technical jargon depending on audience
- Use sans-serif font (Arial or Helvetica) for text
- Posters are usually viewed from at least 3 ft. away. Use at least 20-point type for text and 48-point type for the title
- Titles should be of larger text so they can be visible from a further distance
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GRAPHS/PICTURES
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