

Undergraduate Research and Mentoring Program

How to Design a Good Poster, Apr 6, 2015

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Ordering Your Poster

- Posters due: Wed, May 20 to the OIT/IDSC Lab
 - Broadway Building, 2nd Floor (BHB 225/226)
 - Must take jump drive with PDF copy of poster
 - To pay, give the lab attendant your name and indicate that your name should be on a list with an index code we have provided
- Pick up poster by Wednesday, May 27 and bring to Rachel in EB 502V by 5 p.m.
- Symposium: Thursday, May 28, 1-2:30pm.



Poster Specs

- Size
 - 30" x 40"
- Format
 - PDF
- Logos
 - Email srachel@pdx.edu for logo
 - Indicate what format you'd like



Sources

- <https://www.flickr.com/groups/pimpmyposter>
- <http://www.ncsu.edu/project/posters>
- [http://www.cns.cornell.edu/documents/
ScientificPosters.pdf](http://www.cns.cornell.edu/documents/ScientificPosters.pdf)
- <http://colinpurrington.com/tips/academic/posterdesign>
- <http://www.ncsu.edu/project/posters/NewSite>

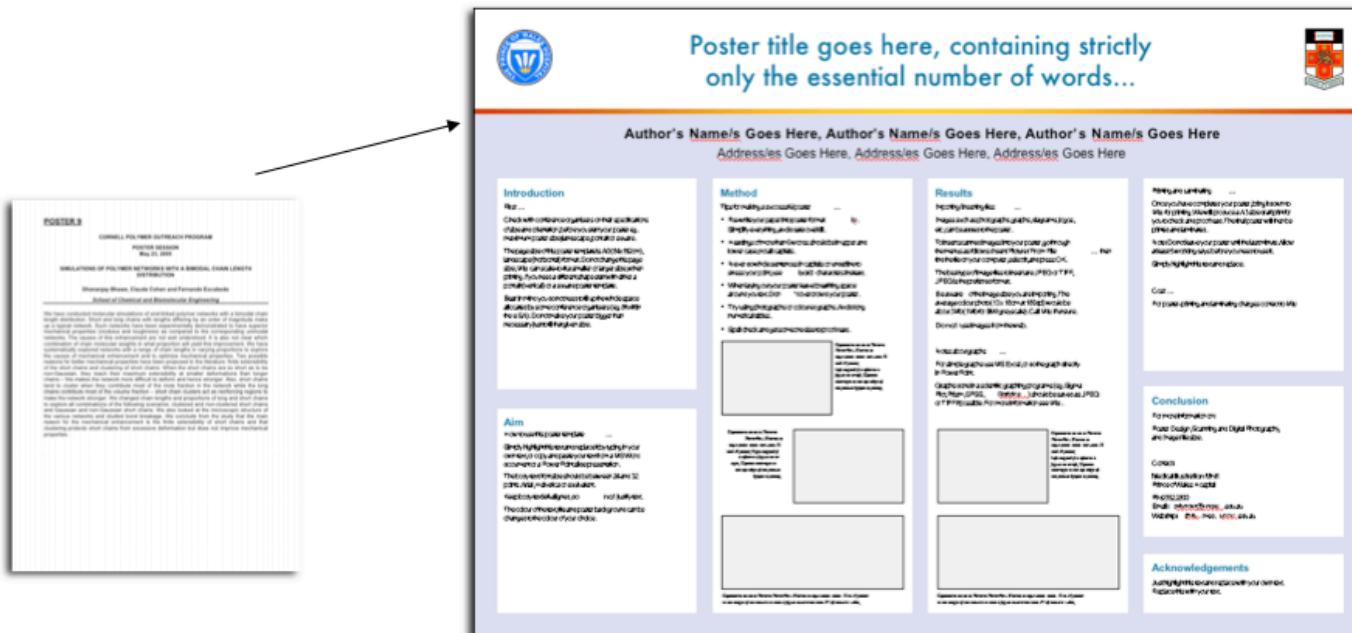


Starting point (1)

- A poster can be better than giving a talk
- More efficient because:
 - you totally bomb at giving talks
 - can be viewed while you nap
 - can hang in the department for years
 - can reach folks not in your field of research
- Posters serve as an advertisement of your hard work.

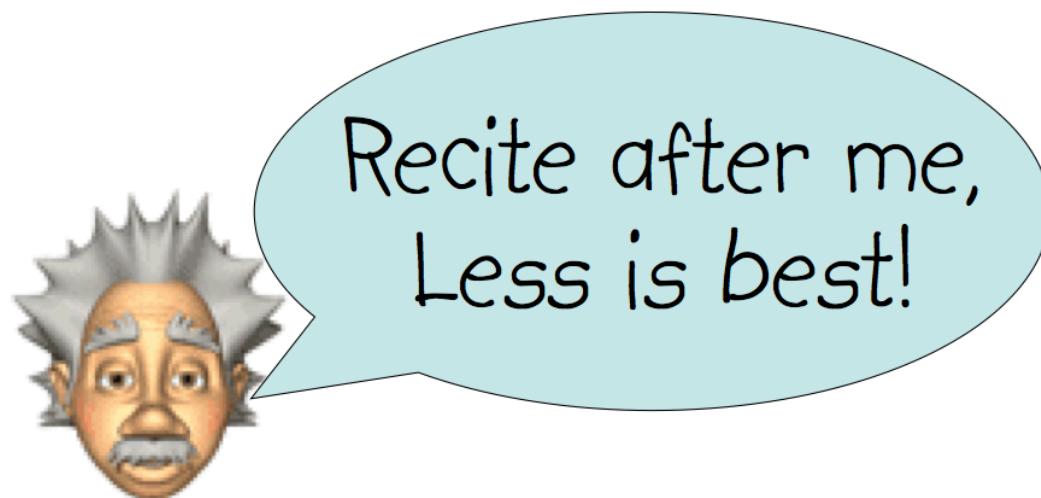
Starting point (2)

- A poster is like an illustrated abstract.
- Is my abstract effective?
 - Why should anyone care?
 - What am I adding to current knowledge?
 - Do I need to explain methods?
 - Have I told them what I found and recommend?

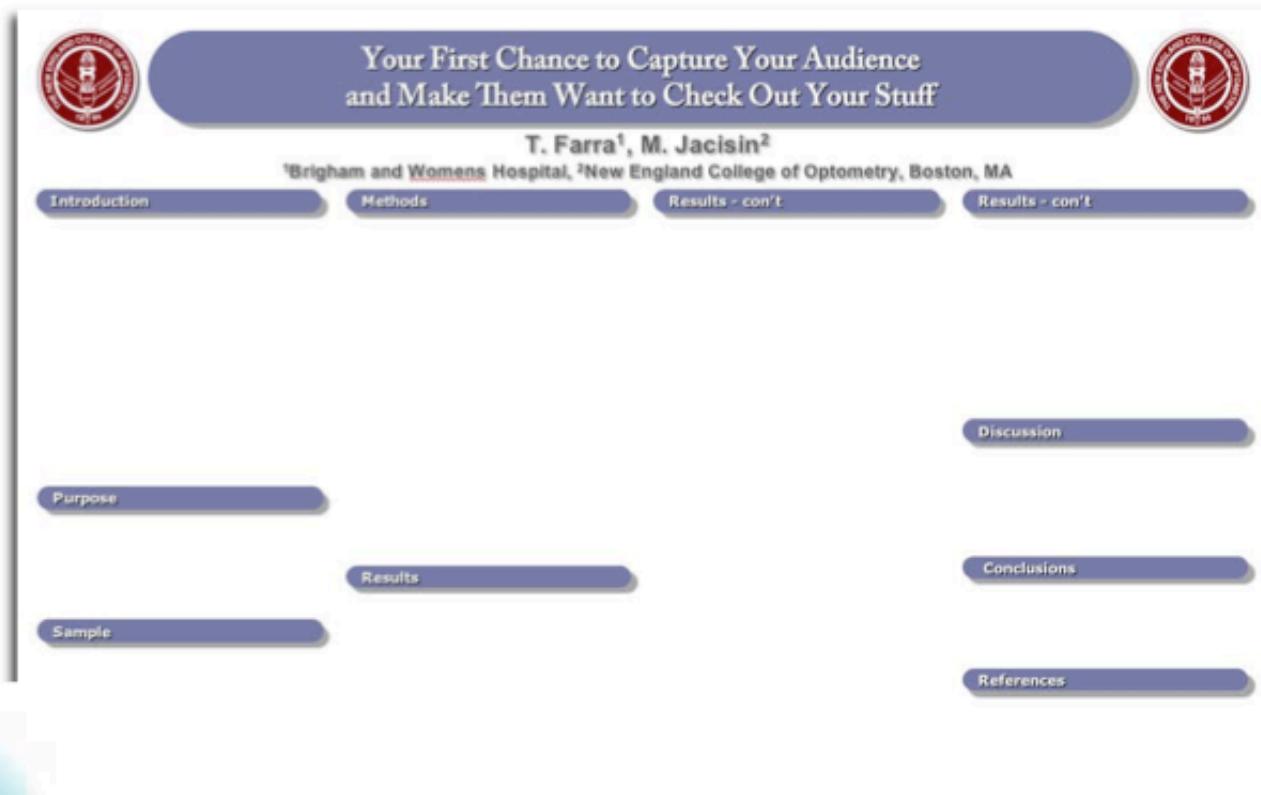


Starting point (3)

- How do I get months and years of research onto my poster?
 - Your poster is a short story
 - Describe a few major points
 - Arouse the reader's interest to read on
 - Limit it to 250 words



Find out the requirements

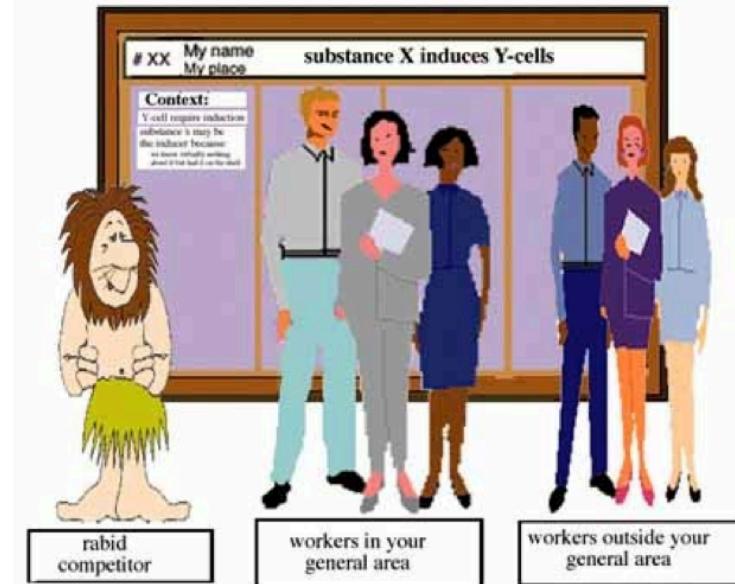


Find out the size required!
E.g., 36" high, 48" wide



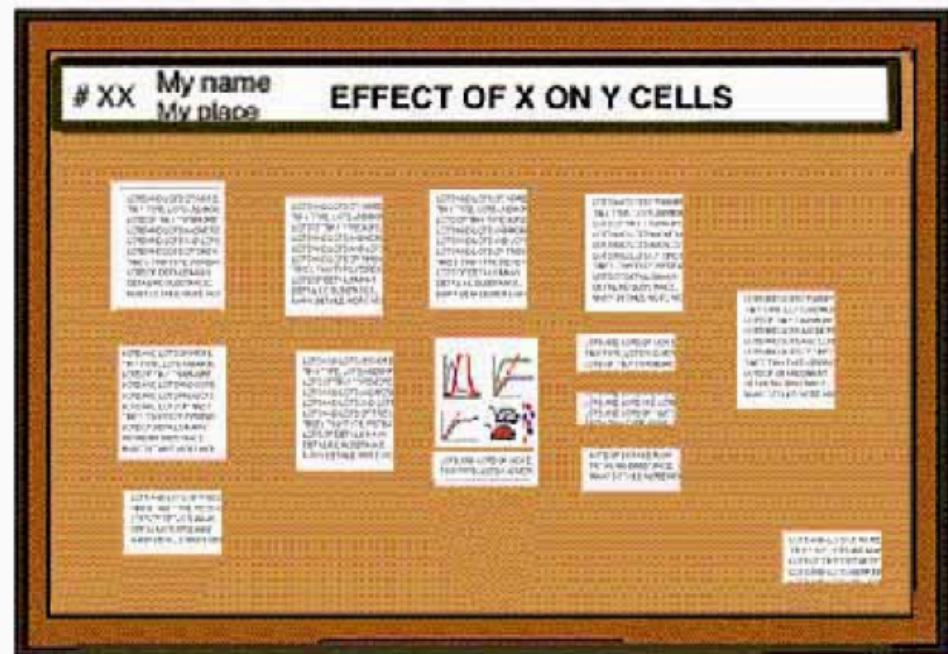
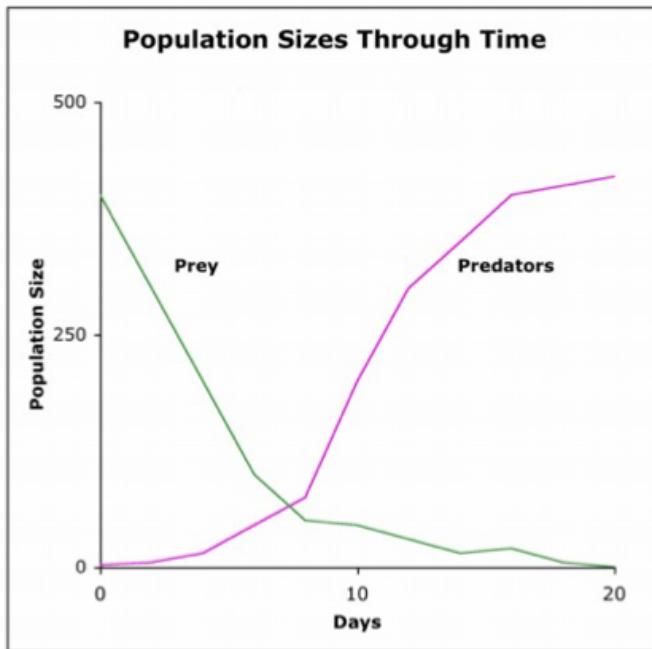
Audience

- In 3 seconds, a viewer decides whether to approach your poster or leave.
- In the next 30 seconds, the viewer decides if your content is worthy of further exploration.
 - Provide a clear flow of information from introduction to conclusion.
 - Focus on major findings—do not try to include everything you know.



Starting to put things together

- The two main elements:
 - Simple, effective data displays
 - Small blocks of supporting text



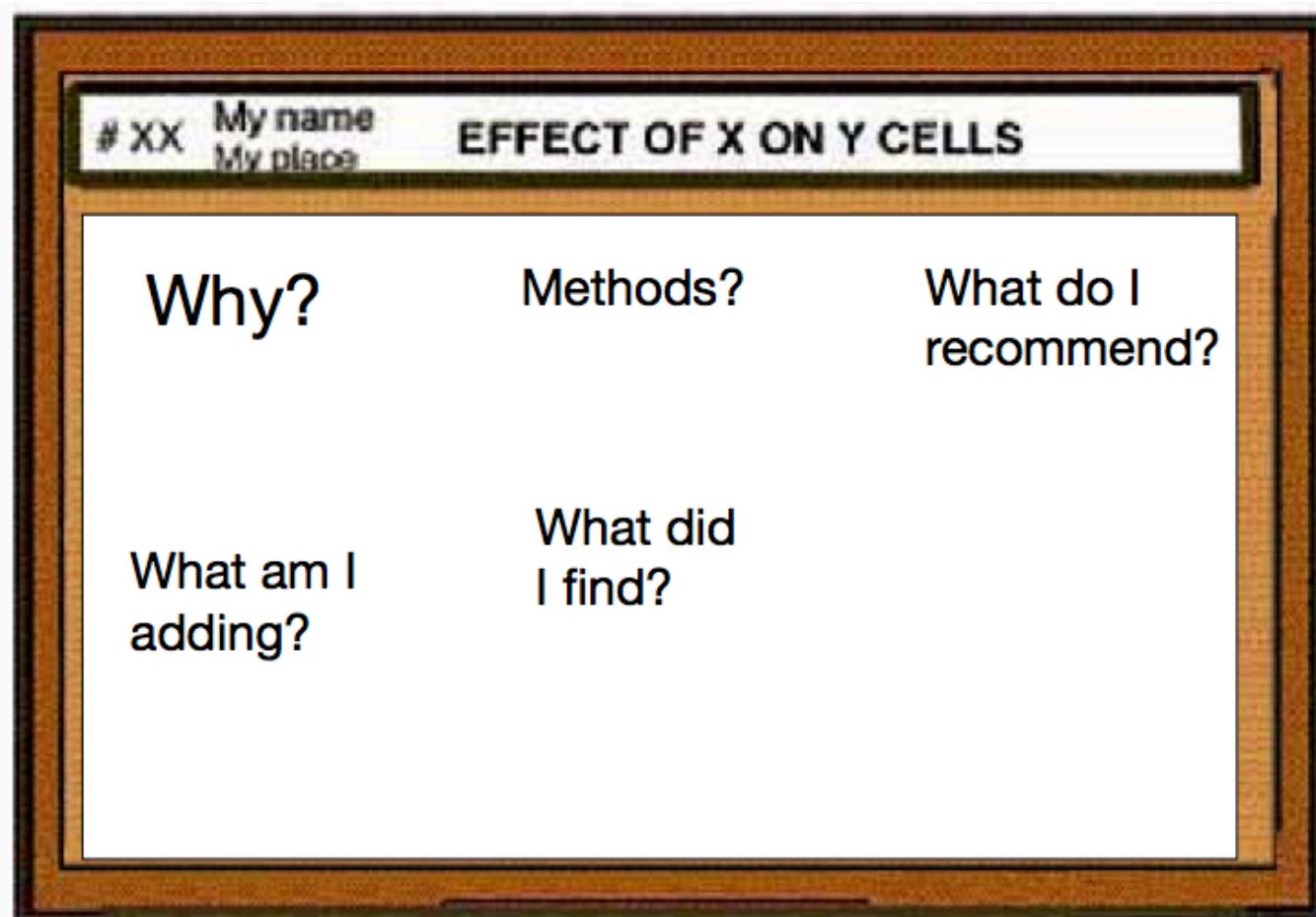
Content (1)

- **Title, Author(s) and affiliation(s)**
- **Abstract:** include only if required by the conference
- **Introduction:** a brief but important overview to secure the viewer's attention
- **Problem:** concise statement of the problem
- **Materials and Methods:** brief description of the processes and procedures
- **Results:** outcomes, findings, data
- **Conclusion:** summary, discussion of significance and relevance of results, a few easily remembered key conclusions, possible future research
- **References**
- **Acknowledgments**
- **Contact Information**



Content (2)

- Your copy should answer:



Software

- PowerPoint
- Adobe Illustrator
- Adobe InDesign
- LaTeX
- Xfig

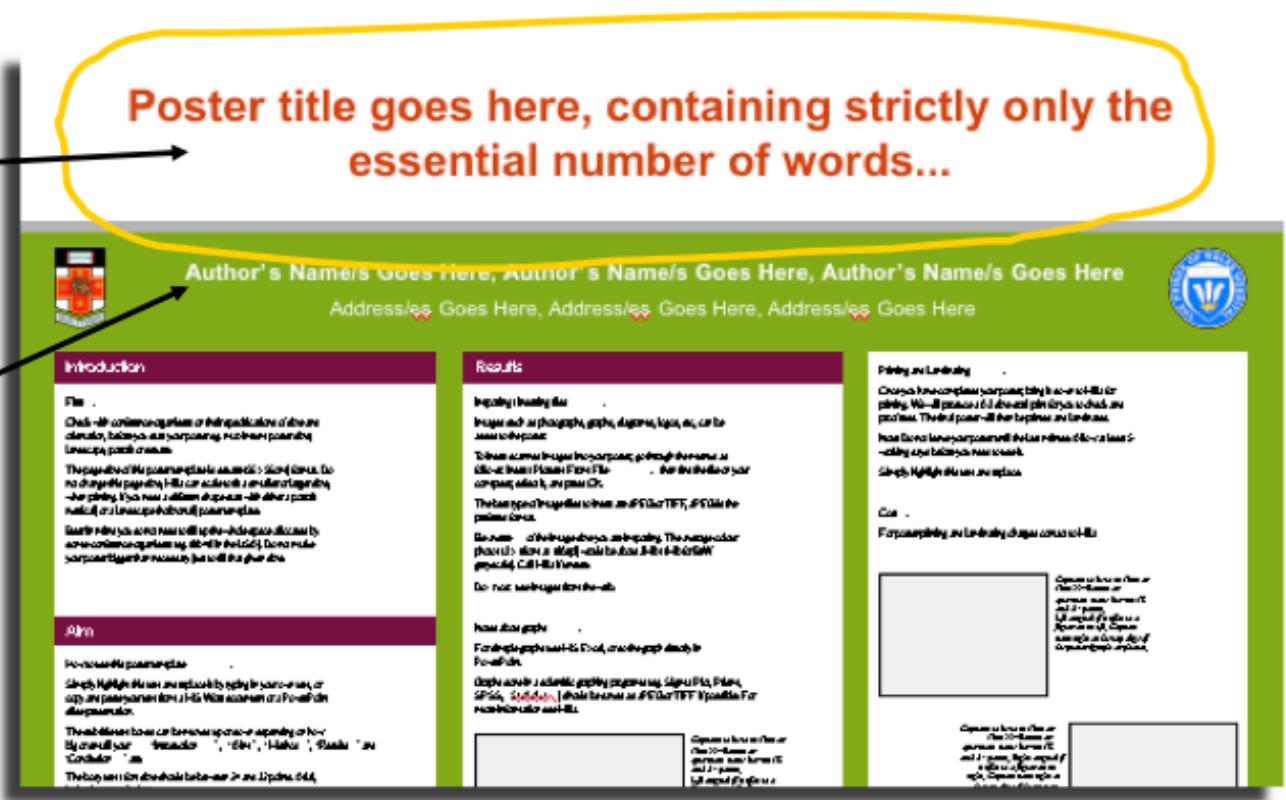


Title

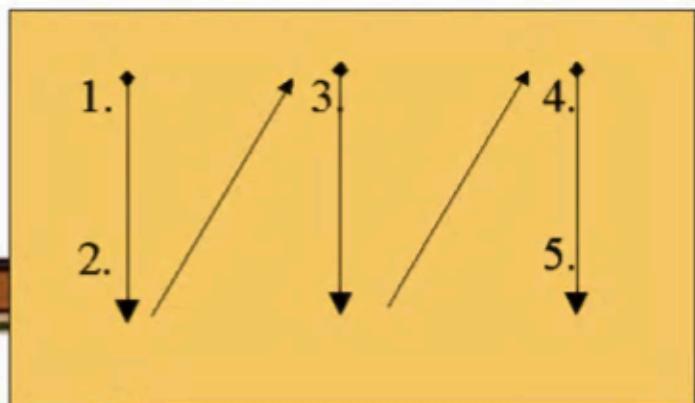
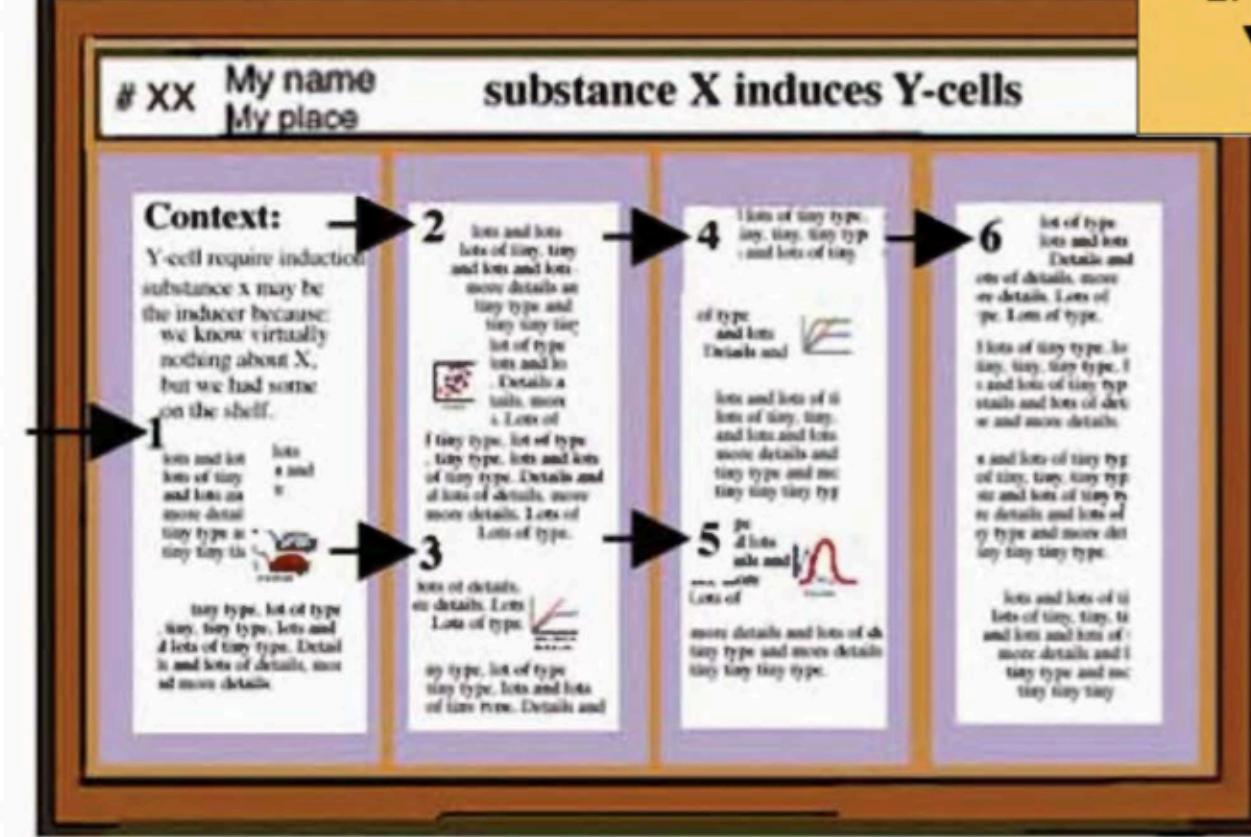
Think BIG! Really Big!

Your biggest impact!
Boldface type
Not all caps!

Group authors
names and
affiliations



Story



Fonts (1)

Title: 85 point

Authors: 56pt

Sub-headings: 36pt

Body text: 24pt

Captions: 18pt

The poster template features a purple header bar with the text "Your Ingenious Teaser Right Here to Woo Them Down to the Body" in white. Below the header, the Karolinska Institutet logo is displayed. The main content area is divided into several sections:

- Conclusions first: 44 pt bold**: A section with text and a small image of a brain.
- Introduction**: A section with text and a bar chart.
- Your aim**: A section with text.
- Your message**: A section with text and two pie charts.
- Layout, photos and print**: A section with contact information and a photo of a person.
- Tips**: A section with text and a photo of a person.
- Handouts**: A section with text.
- Credit**: A section with text and a photo of a person.

Footers at the bottom include links to the University Library, Media Services, and the poster author's contact information.



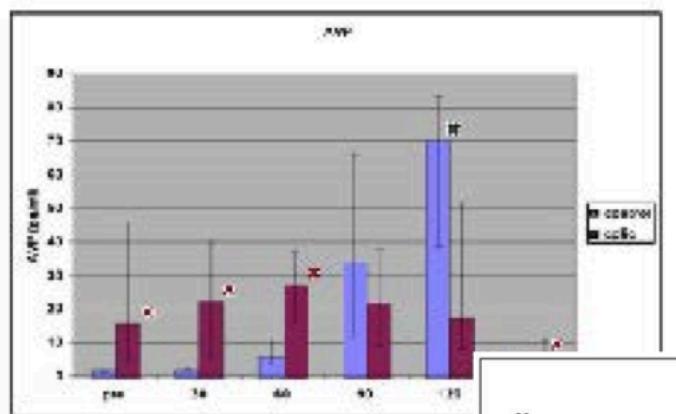
Fonts (2)

- Use font types and font sizes consistently.
- Keep your typography simple, i.e., limit the use of different font types and sizes.
- Choose a font size and style that can be read easily from several feet away.
- To emphasize a point, use **bold** or *italics* rather than underlining as underlined words can be more difficult to read.

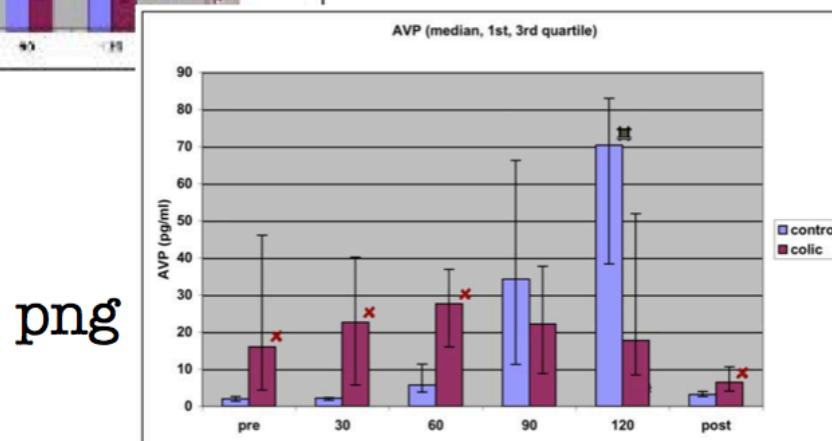


Photos and Illustrations

- Keep poster visual.
- At least 150 dpi, but no more than 300 dpi. Use eps.
- Web images are usually poor resolution. State sources!



jpg

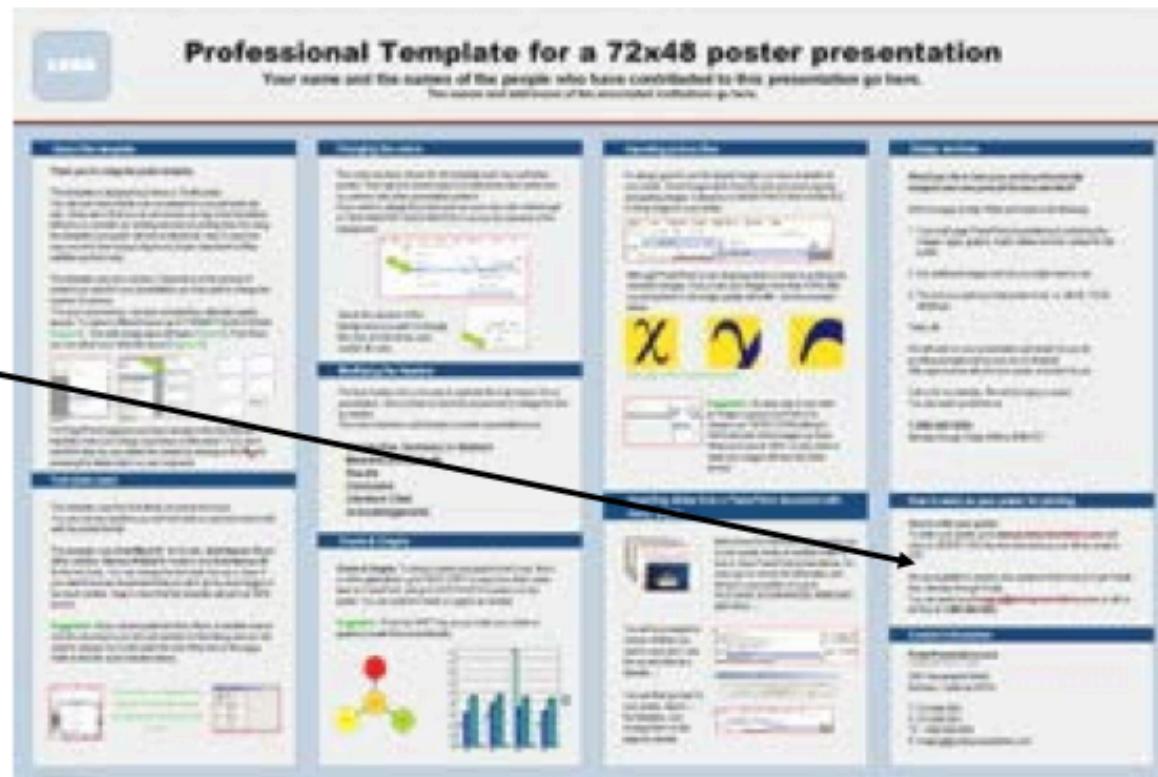


png



Acknowledgments

- Don't forget your funding and other acknowledgments.



URMP Standard Acknowledgment

"The authors acknowledge the support of the Semiconductor Research Corporation (SRC) Education Alliance (award # 2009-UR-2032G) and of the Maseeh College of Engineering and Computer Science (MCECS) through the Undergraduate Research and Mentoring Program (URMP)"

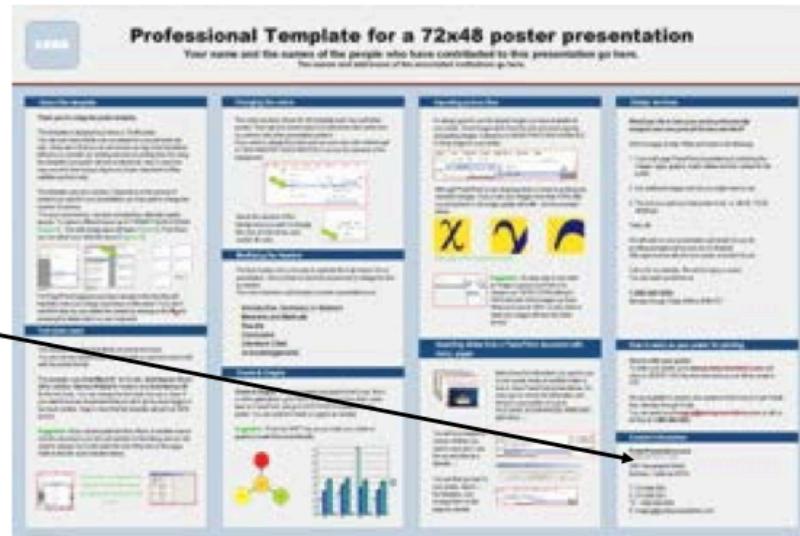


Contact info

- Contact info can go below title or at the end of the poster.

Include all contact info:

- Mail address
- Phone
- E-mail



Colors

- Using color to engage your readers.
 - 2-3 colors should be sufficient.

	<h1>Poster title goes here, containing strictly only the essential number of words...</h1>		
<p>Author's Name/s Goes Here, Author's Name/s Goes Here, Author's Name/s Goes Here</p> <p>Address/es Goes Here, Address/es Goes Here, Address/es Goes Here</p>			
<div style="border: 1px solid black; padding: 10px;"> <p>Introduction</p> <p>Text ...</p> <p>Check with your supervisor on the application of the methods you are using, as this may affect the validity of your results.</p> <p>The project has been funded by the [REDACTED] Research Council. Details of my project are available on the University of Bath website at [REDACTED]. Funding was provided by the [REDACTED] Research Council.</p> <p>For more information about the project, please contact [REDACTED] or visit [REDACTED].</p> <p>Start the poster with a brief introduction of the project, clearly communicating the research question and the methodology used.</p> <p>Keep the introduction short and to the point.</p> </div>	<div style="border: 1px solid black; padding: 10px;"> <p>Method</p> <p>Text ...</p> <ul style="list-style-type: none"> • Method 1: Description of method. Briefly explain what is used. • Method 2: Description of method. Briefly explain what is used. • Method 3: Description of method. Briefly explain what is used. • Method 4: Description of method. Briefly explain what is used. • Method 5: Description of method. Briefly explain what is used. • Method 6: Description of method. Briefly explain what is used. • Method 7: Description of method. Briefly explain what is used. • Method 8: Description of method. Briefly explain what is used. • Method 9: Description of method. Briefly explain what is used. • Method 10: Description of method. Briefly explain what is used. <div style="border: 1px solid black; height: 100px; margin-top: 10px;"></div> </div>	<div style="border: 1px solid black; padding: 10px;"> <p>Results</p> <p>Text ...</p> <p>Figure 1: Graphical representation of the data. The figure shows a scatter plot with points representing individual data points. The x-axis is labeled 'X' and the y-axis is labeled 'Y'. A regression line is drawn through the points, showing a positive correlation.</p> <p>Figure 2: Graphical representation of the data. The figure shows a scatter plot with points representing individual data points. The x-axis is labeled 'X' and the y-axis is labeled 'Y'. A regression line is drawn through the points, showing a negative correlation.</p> <div style="border: 1px solid black; height: 100px; margin-top: 10px;"></div> </div>	<div style="border: 1px solid black; padding: 10px;"> <p>Setting and Limitations</p> <p>Text ...</p> <p>This study has some limitations. We tried to use a diverse dataset, but it is not representative of the general population. The data is from a specific country.</p> <p>It is difficult to draw conclusions from this small sample size. More data is needed to draw more robust conclusions.</p> <p>Cost ...</p> <p>To produce this poster required a significant amount of time and effort.</p> <div style="border: 1px solid black; height: 100px; margin-top: 10px;"></div> </div>
<p>Conclusion</p> <p>Text ...</p> <p>Future work will involve ...</p> <p>Graphical methods are effective for analyzing data in [REDACTED].</p> <p>Graphical methods are effective for analyzing data in [REDACTED].</p> <div style="border: 1px solid black; height: 100px; margin-top: 10px;"></div>			

| **Acknowledgements** Text ... Special thanks to [REDACTED] for their support. This work was funded by the [REDACTED] Research Council. | | | |

Good or Bad?

 POSTER TITLE GOES HERE, CONTAINING STRICTLY ONLY THE ESSENTIAL NUMBER OF WORDS...			
Author's Name/s Goes Here, Author's Name/s Goes Here, Author's Name/s Goes Here Address/es Goes Here, Address/es Goes Here, Address/es Goes Here			
<p>Introduction</p> <p>Post ... Check with your supervisor/jurisdictions applicable rules and regulations you have your poster by meeting required standards applicable to your.</p> <p>The poster should be no larger than 46" (116.8cm) x 34" (86.4cm). Do not include any logos, or graphics, or calculators, or any other items which may be used as alternatives to writing on the poster. You must also include a printed copy of your poster.</p> <p>But remember to make sure the white space is clearly legible and clear enough to read from across the room. Make sure that the text is large enough to read.</p> <p>Check with your supervisor/jurisdictions applicable rules and regulations you have your poster by meeting required standards applicable to your.</p> <p>The poster should be no larger than 46"</p>	<p>Method</p> <p>Topic: Healthy eating for older people</p> <ul style="list-style-type: none"> - Healthy eating for older people that includes healthy and safe eating. - Healthy eating for older people that includes healthy and safe eating. - Healthy eating for older people that includes healthy and safe eating. - Healthy eating for older people that includes healthy and safe eating. - Healthy eating for older people that includes healthy and safe eating. - Healthy eating for older people that includes healthy and safe eating. 	<p>Results</p> <p>Topic: Healthy eating for older people</p> <p>Healthy eating for older people that includes healthy and safe eating.</p> <p>Poster includes healthy eating for older people that includes healthy and safe eating.</p> <p>Poster includes healthy eating for older people that includes healthy and safe eating.</p> <p>Poster includes healthy eating for older people that includes healthy and safe eating.</p> <p>Poster includes healthy eating for older people that includes healthy and safe eating.</p>	<p>Conclusion</p> <p>Post ... Check with your supervisor/jurisdictions applicable rules and regulations you have your poster by meeting required standards applicable to your.</p> <p>The poster should be no larger than 46" (116.8cm) x 34" (86.4cm). Do not include any logos, or graphics, or calculators, or any other items which may be used as alternatives to writing on the poster. You must also include a printed copy of your poster.</p> <p>But remember to make sure the white space is clearly legible and clear enough to read from across the room. Make sure that the text is large enough to read.</p> <p>Check with your supervisor/jurisdictions applicable rules and regulations you have your poster by meeting required standards applicable to your.</p> <p>The poster should be no larger than 46"</p>
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Good or Bad?

NC STATE UNIVERSITY

Snook Growth in Habitats with Differing Abiotic Variability

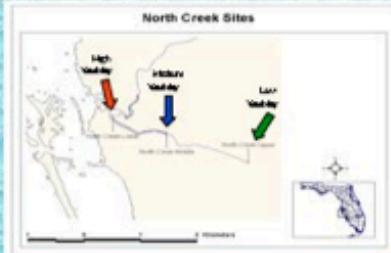
Alesia Read, North Carolina State University, anread@unity.ncsu.edu

PROPOSED OBJECTIVE

To create a useful tool for assessing potential stocking habitats based on degree of variability in water quality.

- Snook are a popular game fish found in the estuarine creeks of Florida
- Snook population has been on the decline due to overfishing and habitat degradation
- Numerous stock enhancement endeavors are currently underway without sufficient preliminary research
- Abiotic variability is a prominent feature of these estuaries
- Temperature, dissolved oxygen and salinity might play influential roles in the survivorship of the juvenile snook

STUDY SITES



METHODS



1. Juvenile snook are raised to fingerlings (100–200 mm) in the aquaculture facility
2. All snook are tagged with identifying markers for individual growth measurements
3. Fish are placed in cages within variable habitats at the research sites for 40 days
4. Fish are weighed and measured for growth

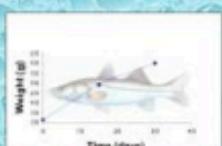
RESULTS

North Creek Lower (High Variability)



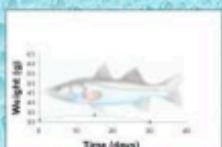
Negative Growth:
Dissolved Oxygen (mg/L)
0-22
Salinity (ppt)
2-21
Temp (°C)
25-34

North Creek Middle (Medium Variability)



Positive Growth:
Dissolved Oxygen (mg/L)
0-8
Salinity (ppt)
16-28
Temp (°C)
30-38

North Creek Upper (Low Variability)



Slow Growth:
Dissolved Oxygen (mg/L)
0-4
Salinity (ppt)
16-30
Temp (°C)
26-33

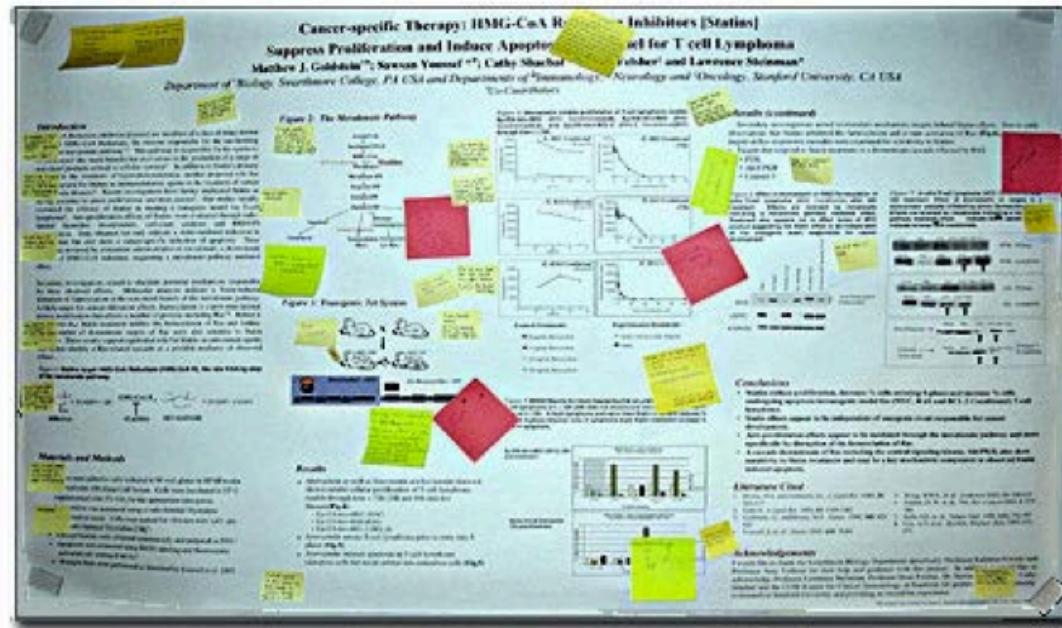
CONCLUSION

- Snook exhibit increased growth in habitats with a medium degree of abiotic variability
- Stock enhancement projects will be more efficient by releasing juvenile snook primarily in nursery habitats with a medium degree of abiotic variability

MOLE MARINE LABORATORY

Spend a day with it

- A poster looks a lot different the day after you finish it.
- Go through several design iterations.
- Print out a letter size draft.
- Seek feedback from peers and people who are not familiar with your research topic/project.



You are not done yet!

- Prepare a 3-5 minute verbal explanation.
- Prepare mini size poster handouts (or business cards):
 - Provides a written record for interested folks
 - Makes you look together
 - Be sure to include complete contact information
 - Might even get you a job!





Karolinska
Institutet

Your Ingenious Teaser Right Here to Woo Them Down to the Body

Always write a teaser 24pt regular

Conclusions first: 44 pt bold

Always put the most important part - your conclusions - first! Place your conclusions in the upper left hand corner of your poster. Prepare your material from the reader's perspective. What was done, by who and your conclusion has to be understood within a couple of second's reading! Use active voice when writing the text. `textsize: 34 pt regular`



Always write a teaser 24pt regular

Always write a conclusion
44pt bold 24pt regular

Introduction

Posters are primarily visual presentations. Your poster should be dominated by self-explanatory illustrations such as graphs and pictures while the amount of text should be kept to the minimum.

Your aim

Your poster is an advertisement for your research and as such it needs to be eye-catching and straight to the point. You only have seconds, or at best a few minutes to attract the attention of the visitor to a poster session. Keep your message short and clear

Your message

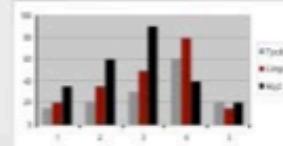
Keep your message clear and your text concise. Decide what is relevant for this poster and try to get your message across to your target group.

Layout, photos and print

Contact [Mediavirke](#) at University Library for help with layout and image enhancement. For printouts and professional photographers contact [Bildmakarna](#). For more information: www.bildmakarna.ki.se



Always write a conclusion
44pt bold 24pt regular



Always write a conclusion
44pt bold 24pt regular

Tips:

The best font for text blocks that are as short as they should be on a poster is a Sans Serif typeface family. Therefore, use sans serif fonts such as Arial or [Myriad sans](#) rather than serif fonts like Times or Courier.

AVOID CAPITAL LETTERS IN TEXTS THAT ARE LONGER THAN ONE LINE, SINCE THEY ARE MORE DIFFICULT TO READ.

Handouts

If you succeed in getting the reader's attention, provide him/her with more detailed information in the form of handouts or printed articles. Include references on your handout instead of your poster.



It is always nice to put in a picture and write some few short notes of what's going on in the future. Put handouts, business cards, nearby - on a table or in an envelope hung with the poster.



Gorgeous!



LESSONS LEARNED FROM AIRWAY PRESSURE RELEASE VENTILATION (APRV)

Lewis J. Kaplan, MD^{1,2}, Heatherlee Bailey, MD, FAAEM¹

Medical College of Pennsylvania-Hahnemann University

Departments of Surgery² and Emergency Medicine^{1,2}, Philadelphia, PA USA

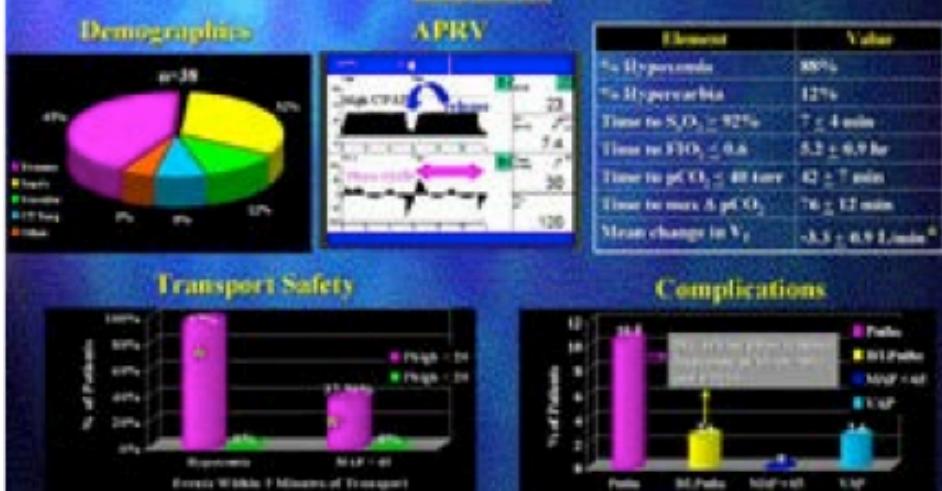
INTRODUCTION

Airway Pressure Release Ventilation (APRV, aka. BiPAP) has been previously demonstrated to be a useful modality in intubating patients with acute lung injury (ALI) or the acute respiratory distress syndrome (ARDS). As this is a fundamentally different mode than conventional cyclic ventilation, we reviewed a single institution's experience with APRV to determine safety, complication detection, and efficacy at resolving hypoxemia and hypercapnia.

METHODS

Consecutive patients transitioned from either volume or pressure-targeted ventilation to APRV (Drager 5500+ Pulmonary Workstation) at a University hospital surgical ICU were retrospectively reviewed. Patients initially ventilated with APRV were excluded. Initial APRV settings to correct hypoxemia ($\text{SpO}_2 \leq 60\%$ or $\text{EtCO}_2 \geq 60\text{ mmHg}$) were a T_{high} at the prior plateau pressure of 30 sec and a T_{low} of 0.8 sec. Hypercarbic ($\text{pCO}_2 \geq 55\text{ mmHg}$ and $\text{pH} \leq 7.2$) patients were set at a T_{high} of 5.0 sec and a T_{low} of 1.0 sec. Settings were adjusted to resolve hypoxemia and hypercapnia. DRB approved abstracted data included principal diagnoses, ventilation parameters, laboratory values and ventilator associated complications. Data before and after APRV were compared using a two-tailed paired t-test or Chi-square as appropriate; significance was assumed for $p < 0.05$ (*).

RESULTS



CONCLUSIONS

1. APRV is a safe rescue mode for hypoxic or hypercarbic respiratory failure and requires a significantly lower V_{t} than conventional ventilation.
2. Decreasing release phase volumes and a rising pCO_2 are strong indicators of pneumothorax in a patient on APRV. Routine end-tidal CO_2 monitoring is recommended.
3. Preparation for safe intra-hospital transport may be keyed to the P_{high} required for oxygenation and ventilation. Patients requiring a $P_{\text{high}} > 20\text{ cm H}_2\text{O}$ should be transported on the ventilator.



Welcome to
the 80's

Fer sure!



Determining the Wear Resistance of Occlusal Splints in a Prospective Clinical Study

P. Ottl, P. Schmelz, A. Piwowarczyk, H.-Ch. Lauer

Dept. of Prosthodontics, School of Dentistry (Director: Prof. Dr. H.-Ch. Lauer), ZfZMK (Carolinum), J. W. Goethe University, Frankfurt, Germany

Objective

- To determine quantitatively the wear resistance of a newly developed light-curing splint resin over a period of six months.

Materials and Methods

• Patients

n = 20 consecutive patients
(mean age: 34.7 years; 12 F, 8 M)

• Inclusion criteria

- Natural dentition fixed denture
- Complete dentition to at least the 1st molar and
- for the stabilization splint sample:
 - Inufficient occlusal support
 - Increased occlusal loss of dental hard tissue

- for the distraction splint sample:
 - TMD pain and
 - Complete anterior dislocation of the disk without reduction/with terminal reduction
 - TMD catathesis



Fig. 1 Occlusal splint in situ

- Resin splint material (Fig. 1)
 - Light-curing (400–500 nm) resin made of high-molecular dimethacrylates with organic and inorganic fillers
 - Does not contain methyl methacrylate

• Study design

- Duration: 6 months
- Types of splints (resin, n = 10 each):
 - stabilization splints, distraction splints
- Splint wear mode: 24 hours
- Examinations:
 - before insertion (IE), at 4 weeks (4W),
at 3 months (3M), at 6 months (6M)
- Occlusal adjustments were restricted to the time before 4W.



Fig. 2 Test setup

- Measuring technology (Fig. 2)
 - Vibration-isolated table framework
 - 3 translation stages (for directions x, y, and z) (DC-Motor) (PI, Walldorf)
 - DV 4 stereomicroscope (Zeiss, Oberkochen)
 - WA 20 inductive displacement transducer
 - Spider® digital 8-channel measurement unit/Catman 32 software V2.1 (HEM, Darmstadt)
 - Local coordinate storage for occlusal contacts during baseline measurements
 - Ten measurements each in regions 13, 23, 16, 26 (IE, 4W, 3M, 6M)
 - Splint repositioned on remount cast

Results

- The means of the occlusal vertical gain losses (wear, resin tension, water sorption, etc.) are shown in Fig. 3 (stabilization splints) and Fig. 4 (distraction splints).

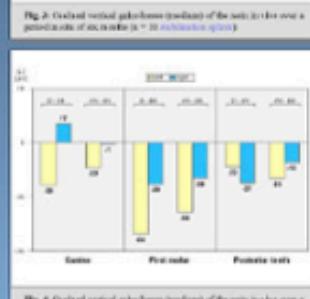


Fig. 3 and 4: Occlusal vertical gain losses (mean) of the stabilization resin splints after 6 months of use (n = 10 stabilization splints)

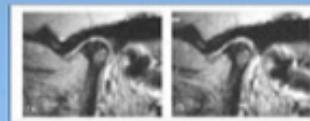


Fig. 5a and b: Optical sectioning (Zeiss 3D) of the condylar fossa indicating a wear gap (Fig. 5a) and with distraction splint inserted (Fig. 5b) following 6 months of use

Conclusions

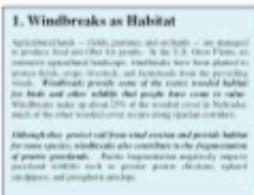
- The present study clinically confirms the good wear resistance results of the new resin splint material obtained in a previous in-vitro study [OTTL, et al., Dtsch Zahärztl Z 52, 342 (1997)].
- Good wear resistance is of great importance for maintaining the therapeutic mandibular position during the treatment period (Figs. 5a and b).



Nice poster

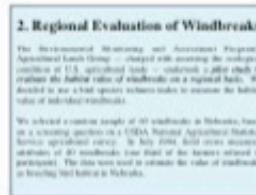
Using a Windbreak Habitat Model Across Broad Landscapes: The Effect of Local Landscape Composition and Geographic Location

George Hess¹, John Poulsen², Raymond O'Connor³, Jeff Bay¹

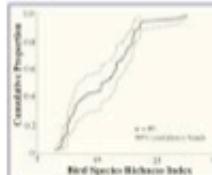
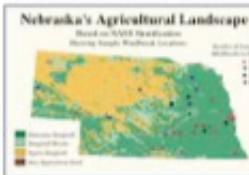


Although other projects can focus small areas and protect habitat for specific species, this project specifically targets agricultural systems and their providers. Project implementation requires agricultural systems such as pasture, pasture/elephant, rangeland, rangeland/elephant, and pasture/elephant.

- ★ Many windbreaks were completed using low-cost materials with a focus established by farmers of restoration.
- ★ Most sample windbreaks fall into or near eastern cropland.
- ★ Major characteristics of each windbreak very consistent in terms.
- ★ Three fire farmers allowed windbreaks to return to nature in 1999.

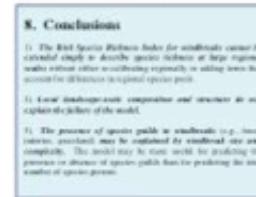
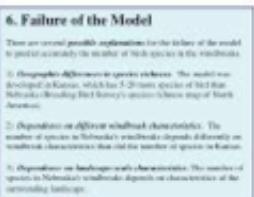
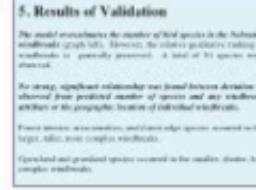
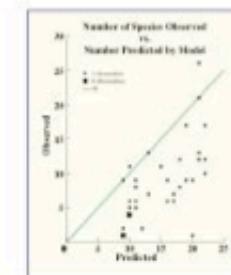
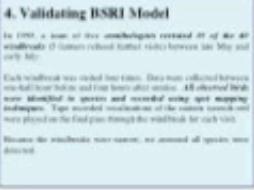


We selected a random sample of 40 windbreaks in Nebraska, based on a sampling protocol used by the U.S. Natural Resources Conservation Service. This sample was used to estimate the value of windbreaks in Nebraska. The data were used to estimate the value of windbreaks in Nebraska from 1999 to 2000.



Using regression factors associated with each variable, we estimated the habitat value of windbreaks for the entire graph table.

- ★ We estimated that half of Nebraska's windbreaks supported 10-15 breeding bird species (graph left).
- ★ We also estimated that between 80% and 100% of windbreaks are smaller than 1.5 hectares (data not shown), suggesting that few Nebraska windbreaks provide habitat for fewer species or serve smaller niches.



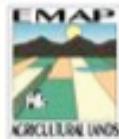
Acknowledgments: This work could not have been done without the many dedicated people at the National Agricultural Statistics Service who helped plan and execute the 1999 data collection effort; the land farmers who allowed us to survey their windbreaks; the five ornithologists who spent six weeks surveying around Nebraska; and many other people from the University of Nebraska, U.S. Fish and Wildlife Service, Natural Resources Conservation Service, and the Environmental Protection Agency. Funding was provided by the Environmental Protection Agency and the USDA Agricultural Research Service.

1. North Carolina State University, Forestry Department, Raleigh, NC
2. University of Maine, Department of Wildlife Ecology, Orono, ME
3. North Carolina State University, Statistics Department, Raleigh, NC

11 March 2007

A bit text heavy but not too bad.





A Framework for Assessing the Condition of Agricultural Lands

George Hess¹, Anne Hellkamp², Mike Munster³, Steve Peck³, Lee Campbell³, Betty McQuaid⁴, Steve Shaffer^{3,5}

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.



Sustainable agriculture has been discussed, defined, and debated in countless papers.

Evaluations tend to be broad and encompass ecological, economic, social, and even policy dimensions. Although these dimensions are intertwined, each may be evaluated independently.

In our efforts, we sought methods to examine only the ecological aspects of sustainability.



People place values on agricultural lands that must be addressed if monitoring is to be relevant.

The assessment goal for agricultural lands is to produce food and fiber for human uses.

Other desired outcomes can be considered goals for the larger landscape and sometimes functions or contributions of production. These include clean air and water, wildlife habitat, and aesthetically pleasing landscapes.

The ecological condition of agricultural land is defined by its productivity and the degree to which valued biotic and abiotic resources are conserved and preserved.

Agricultural land is good condition if productive and able to support natural resources. Sustainability is the ability to maintain good condition over time.



Indicators were selected to reflect crop productivity and land stewardship.

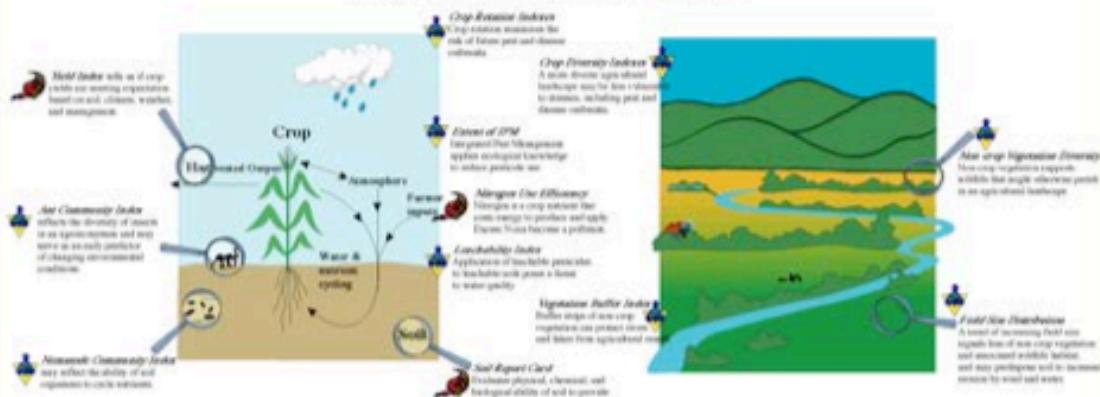
In making an assessment, condition is reported for each indicator. An overall condition may also be reported, but depends entirely on the relative weighting of the goals for agricultural lands.

For sustainability, one can monitor trends in crop productivity and stewardship practices.

Potential Indicators for Annually Harvested Herbaceous Cropland

As a starting point, we chose to concentrate our efforts on developing indicators for **annually harvested herbaceous cropland** – 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 replace, 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 National Resources Conservation Service's Natural Resource Inventory data.



Where do I begin?

Acknowledgements: The EMAP Agricultural Lands Resource Group thanks the many individuals and organizations that made this effort a success. The individuals are too numerous to mention, but organizations include the USDA Agricultural Research Service, Forest Service, National Agricultural Statistics Service, and Natural Resources Conservation Service; the U.S. Environmental Protection Agency; North Carolina State University, University of Miami, Oregon State University, University of Nebraska, and, well, I guess the list of organizations is pretty long, too. Thanks to all!

1. North Carolina State University, Forestry Department, Raleigh NC
2. Duke University Medical Center, Durham NC
3. North Carolina State University, Department of Plant Pathology, Raleigh NC
4. USDA Natural Resources Conservation Service, Raleigh NC
5. USDA Agricultural Research Service, Raleigh NC



PREVALENCE OF OBESITY AMONG INNER CITY LATINO CHILDREN AND ADOLESCENTS

Nazneen M. Mirza MD, ScD, Jai Merchant MS, Leslie Baker, PhD

Children's National Medical Center and George Washington University School of Medicine and Health Sciences, Washington, DC

Background

Obesity is a major clinical and public health problem among children and adolescents in the USA. In particular, significant increases in the prevalence of obesity and its complications among the Latino population, having this ethnic group being in a strong state of health and children are at risk. Because of the previous placed on children, there may be a misplaced assumption that children should not be heavier than other children such as the Latino in children and adolescents is concerning not only because of the increased medical and psychological consequences, but also because these children tend to become obese while those healthy or associated with being obese, do not have an economic impact on the health care system.

Purpose of Study: To estimate the rates of obesity among inner city Latino children and adolescents with the overall goal of assessing the need for an obesity prevention program.

Study Design

One hundred and twenty five obese children and adolescents aged 4-16 years were randomly selected from well-child visits to Children's Hospital of Adams Morgan, DC for the calendar year 2000. This cohort was an average of 9.6. The patients' records, anthropometric (weight and height), predominantly from 10 sources. Information recorded from the charts included height, weight, blood pressure, lower extremities, history and physical findings associated with obesity (e.g. hypertension, body mass index). BMI was calculated from measured height and weight. Data analysis was done using SPSS version 8.0.

Sample

The breakdown of the study sample is shown by Table 1. About 50% were females. The mean age was 9.6 years with a SD of 3.8 and a range of 4.5 to 16.7 years. The mean BMI was 20.8 kg/m² (SD 4.1) and a range of 13.1-30.0. Overall 90% of the children were obese, with an average BMI of 29.0 (SD 4.0) kg/m². The percentage with an obese equal distribution between the two extremes (Table 2). When we look more closely and at risk for comorbidities than others, the gender difference was not statistically significant. The prevalence of hypertension was higher for girls ages 10-13 years.

Table 1 - Demographic variables

Variable	Frequency (%)
Gender	
Male	46
Female	53
Age (in years)	41.2%
4-9	35
10-14	31
15-16	24
17-18	10
19-20	1

Table 2 - BMI distribution

BMI Category	No. (%) of participants (N=40/100%)	Frequency (%)
At Risk for overweight (10.0-18.49 ^a)	20/0	50.0
Normal (18.5-24)	22/0	55.0
Overweight (25-29.9 ^b)	2/0	5.0
Obese (30.0-39.9 ^c)	2/0	5.0
Very obese (40.0-49.9 ^d)	0/0	0.0
Extremely obese (50.0-59.9 ^e)	0/0	0.0
Severely obese (60.0-69.9 ^f)	0/0	0.0
Extremely severely obese (70.0-79.9 ^g)	0/0	0.0

Table 3 - At Risk for Overweight and Overweight by Sex Category

Sex Category	No. (%) of participants (N=40/100%)	Overweight (%)
Total	40/0	50.0
Male	20/0	50.0
Female	20/0	50.0
4-9 yrs	18/0	55.6
10-14 yrs	12/0	25.0
15-16 yrs	6/0	33.3
17-18 yrs	2/0	25.0
19-20 yrs	0/0	0.0

Results & Discussion

The prevalence rate for overweight and obesity by sex category among children and youth in the poverty Latino community is more than twice the national average. Minority health care providers must take advantage and focus on the presence of obesity and overweight in children and adolescents to study and provide appropriate management of the problem. Targeted interventions and programs, designed for overweight and obesity in children and adolescents are currently needed for this population.



I'm feeling
sleepy





OK, but
which way
do I go?

Early Outcomes of the First 1471 Consecutive Kyphoplasty Procedures in the United States for the Fixation of Painful Osteoporotic Vertebral Body Compression Fractures (VCF)

Steven R. Gertler¹, M.D., Isaac H. Lieberman², M.D., Mark A. Reilly³, M.D., Joseph M. Lane⁴, M.D., Frank M. Phillips⁵, M.D., Helmut S. Mathew⁶, M.D., Hansen A. Yuan⁷, M.D., Barton H. Bachur⁸, M.D., for the Kyphoplasty Study Group
¹University of California, San Diego, Medical Center, San Diego, CA, ²Cleveland Clinic, Cleveland, OH, ³Berkshire Orthopaedic Medical Group, Berkley, CA, Hospital for Special Surgery, New York, NY, ⁴University of Chicago Spine Center, Chicago, IL, ⁵Mid-Atlantic Spine Specialists, Richmond, VA, ⁶State University of New York Health Sciences Center, Syracuse, NY, ⁷Withey Medical Center, Albany, NY

BACKGROUND

- 700,000 VCF's per year
- 270,000 diagnosed, >80% due to pain
- Spinal deformity associated with
 - Significant morbidity
 - 22% increased mortality (Kado, Ann Int Med 1999)
- Current treatments ineffective
 - Open surgery fail
 - Medical management palliative
- Vertebroplasty
 - Bilateral transpedicular cement fill
 - Relieves pain
 - Requires high pressure and runny cement
 - High risk of cement leak
 - Up to 77% when documented (Neel et al., Radiology 1987)
 - Major complications (Christie, J H Neurosurg 1997)
 - 1.3% in metastases
 - 10% in metastatic cancers

KYPHOPLASTY

Kyphoplasty is a minimally invasive orthopedic procedure for reducing and fusing painful vertebral body compression fractures secondary to osteoporosis. Using a posterior approach, one or two Inflatable Bone Tamps (Fig. 1) are inserted into the fractured vertebral body, generally using a bilateral transpedicular approach (Fig. 2). The surgeon carefully inflates the balloon tamps (Fig. 2) using radiopaque contrast medium with image, volume and pressure control. The increased balloon tamp volume compresses the inner cancellous bone as it pushes the fractured outer cortical bone back toward its normal position. The inflation path is also controlled to placement, volume and balloon design. After reduction, the balloon tamps are removed, and the resulting void is filled with thick PMMA under fine manual control and low pressure. The steps of Kyphoplasty are illustrated in Fig 3.

Fig. 1 Inflatable bone tamp (IBT)
 Fig. 2 Bilateral Transpedicular Fracture Reduction with the IBT
 Fig. 3 Kyphoplasty Using the IBT

STUDY DESIGN AND METHODS

A retrospective multi-center review to assess early outcomes with Kyphoplasty. Pain was localized by physical examination. The presence of thoracic edema and collapse was confirmed on MRI. General or deep local anesthesia was chosen based on anatomy, number of levels and patient status. The first 125 patients at our centers were used to characterize their back pain as improved, the same or worse 24 hours post-op and at last follow-up. Fractured and restored normal vertebral body heights were measured anterior, medially and posterior in the first 27 vertebral body fractures treated by one surgeon (MARS). The height of the nearest normal vertebral body was used to calculate the % of predicted height for all the vertebral bodies (Fig. 4A) and for the sub-set where which had lost 10% or more of height before treatment (Fig. 4B).

Figure 4A: Percent of Predicted Height Pre- and Post-Kyphoplasty (n=27)
 Figure 4B: Percent of Predicted Height Pre- and Post-Kyphoplasty in Fractures With a 10% or Greater Compression

The pre-treatment height was subtracted from the predicted height, then divided by the post-treatment height subtracted from the predicted height, to find the percentage of total height restored. One set of X-rays by one surgeon (PMW) are used to show an example height restoration (Fig. 5A) and deformity correction (Fig. 5B). Device-related major complications from all procedures are reported. PMMA leaks in the first 75 procedures performed by one surgeon (PMW) were assessed with X-ray and MRI.

PRELIMINARY RESULTS

471 Kyphoplasty Total (1)
 Average Postage: 45 weeks
 Range: 11 days to 4 years
 600 sessions
 390 kyphoplasty Total (2)
 Average Postage: 11 weeks
 Average Postage: 10 weeks (range: 10-11 weeks)
 Average Time Between Treatments: 3.1 days (range: 1-10 days)
 More than 10% expansion rate:
 • Mean 10.6%
 30% expand post-expansion rate:
 40% (10% reduction) (Fig. 4A, 4B, 5A, 5B)
 50% increased incidence of subsidence
 10% device related major complications:
 • Dislodged
 • Leaking
 • Bleeding
 • 10% PMMA leak (by learning curve)

CONCLUSIONS

Kyphoplasty is an important treatment option that provides immediate mobility and return-to-activities of daily living to patients with acutely painful vertebral body compression fractures secondary to osteoporosis. Kyphoplasty facilitates fracture reduction and deformity correction. While reduction is more likely in acute fractures (less months or less), it has been seen in fractures over one year old. Kyphoplasty also provides rapid pain relief in the nearly all patients, and this result is independent of fracture reduction. The safety profile of Kyphoplasty compares favorably to the published safety profile of vertebroplasty.





Poster title goes here, containing strictly only the essential number of words...



Author's Name/s Goes Here, Author's Name/s Goes Here, Author's Name/s Goes Here

Address/es Goes Here, Address/es Goes Here, Address/es Goes Here

Introduction

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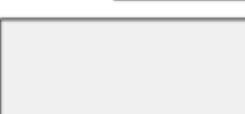
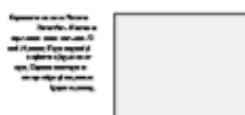
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Conclusion

For more information:
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Acknowledgements

Justify/refer to your colleagues.
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Perfect!

