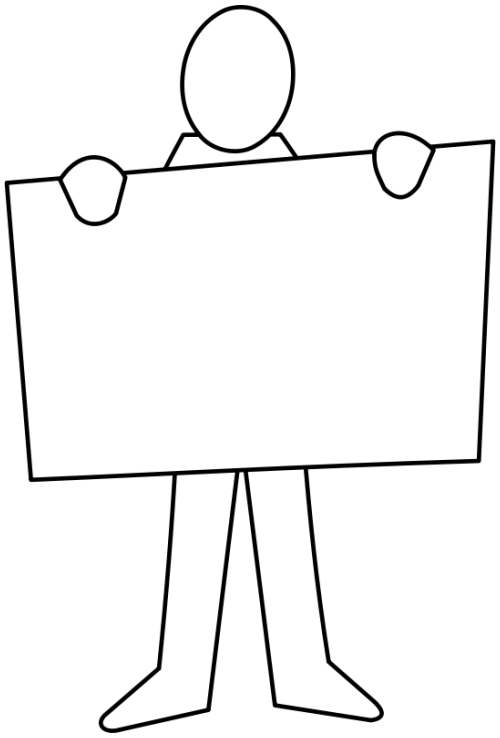
Poster Presentations: Design and Delivery



Joanne Lax
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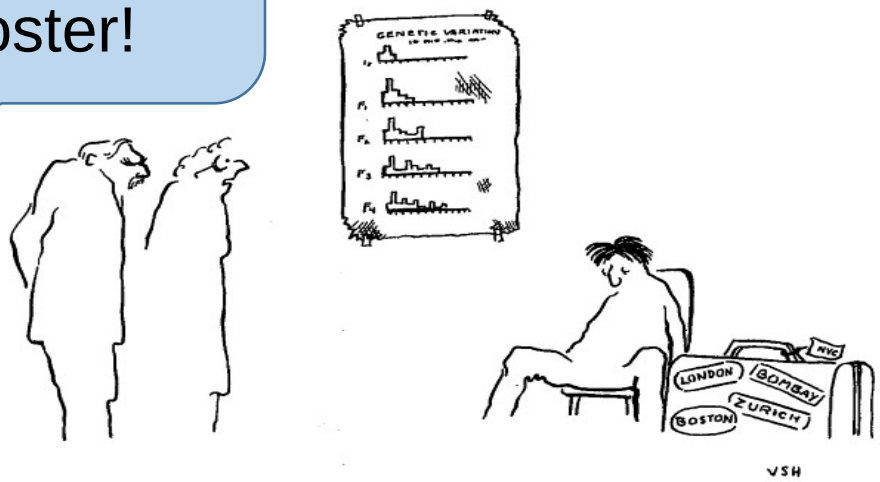
jlax@purdue.edu

Don’t reuse the same poster!



"Haven't I seen this poster somewhere before?"

“*It takes intelligence, even brilliance, to condense and focus information into a clear, simple presentation that will be read and remembered. Ignorance and arrogance are shown in a crowded, complicated, hard-to-read poster.*”

Mary Helen Briscoe, quoted in R. Day, *How to Write & Publish a Scientific Paper*, 5th ed., 1998.

What are Poster Presentations?

- Alternative to paper presentation
  - Allow much more research to be presented

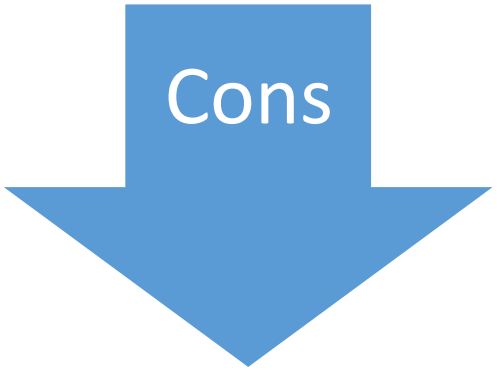
Poster Purpose

- To communicate your research
- To get feedback before submitting a manuscript for publication*
- To network with others in the field
- To promote your work/you before entering the job market

*may have already done this

Adapted from S. Plunkett, “Tips on Poster Presentations at Professional Conferences”

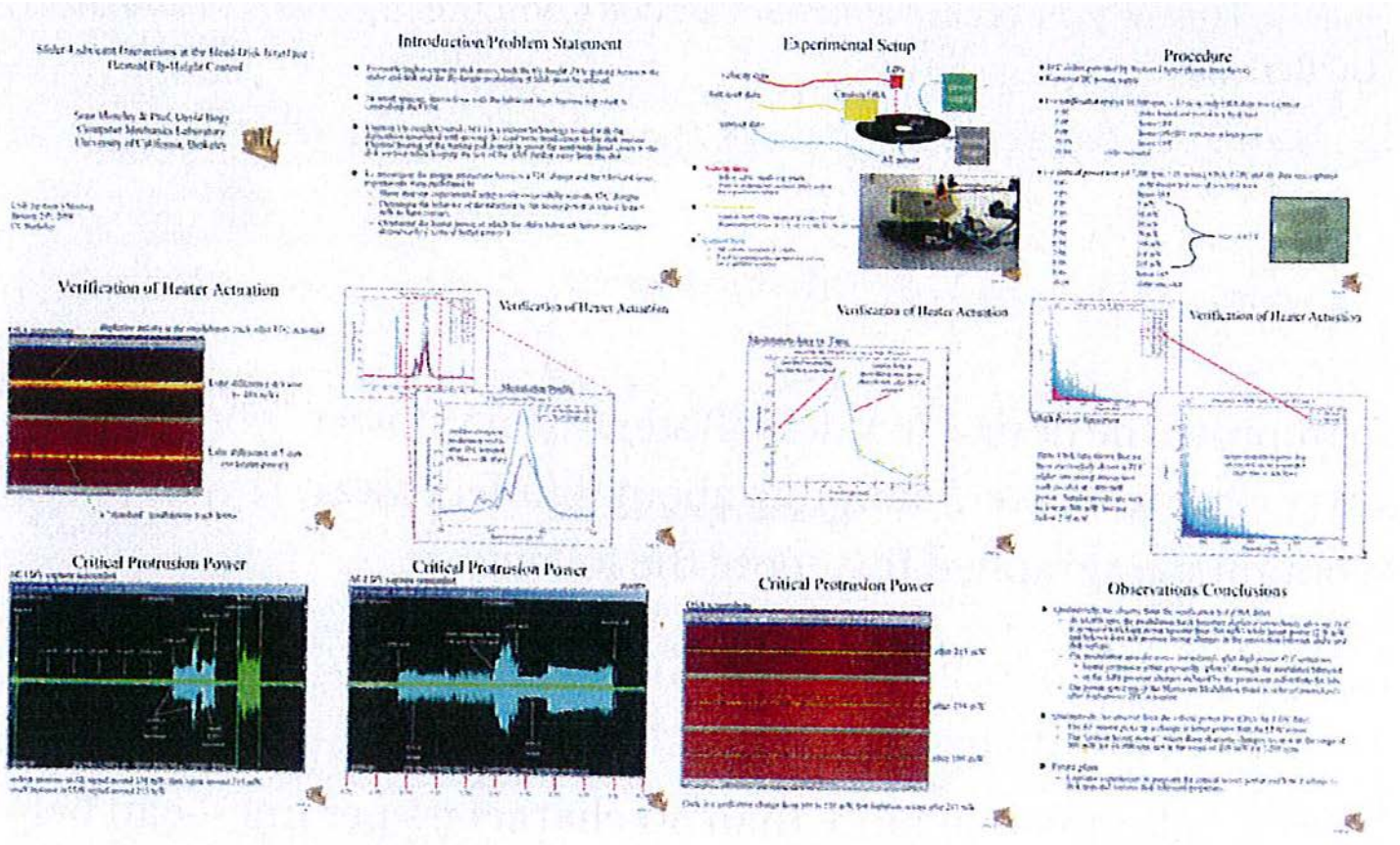
Poster Presentation Pros & Cons



- No captive audience
- Limited space for message
- Awkward to transport

- More relaxed
- Attractive medium
- More personal

Posters ≠ PowerPoint Slides



The Engineering Communication Manual,
pp. 447-449

Posters ≠ Written Reports

Slider-Lubricant Interactions at the Head-Disk Interface : Thermal Fly-Height Control

Sean Moseley & Prof. David Bogy
Computer Mechanics Laboratory
University of California, Berkeley

CML Sponsor's Meeting
January 29th, 2008
UC Berkeley

Problem Statement

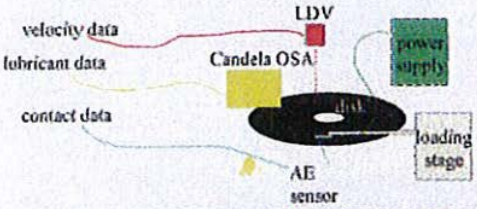
To enable higher capacity disk drives, both the fly-height (FH) spacing between the slider and disk and the fly-height modulation (FHM) must be reduced. At this small spacing, interactions with the lubricant layer become important in controlling the FHM.

Thermal Fly-height Control (TFC) is a current technology to deal with the difficulties associated with moving the read/write head closer to the disk surface. Thermal heating of the trailing pad is used to move the read/write head closer to the disk surface while keeping the rest of the ABS further away from the disk.

To investigate the unique interaction between a TFC design and the lubricant layer, experiments were performed to:

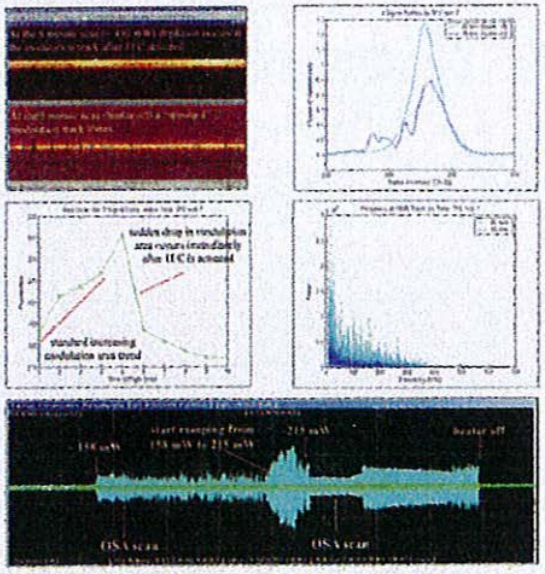
- Show that our experimental setup could successfully activate TFC designs.
- Determine the behavior of the interface as the heater power is varied from 0 mW to hard contact.
- Determine the heater power at which the slider-lubricant interaction changes dramatically ("critical heater power").

Experimental Setup & Data Collection



Velocity data was collected with a Polytec LDV, sampled at 10 kHz, chosen to qualitatively sense HGA motion. Lubricant data was collected with a Candela 5100 OSA, sampled at 1 μm x 0.044°. Lubricant measurements were taken at 1, 5, 10, 15, 20, 25, 30, and 45 min. An AE sensor, sampled at 10 kHz, was used to continuously monitor for contact between the HGA and the disk.

Data

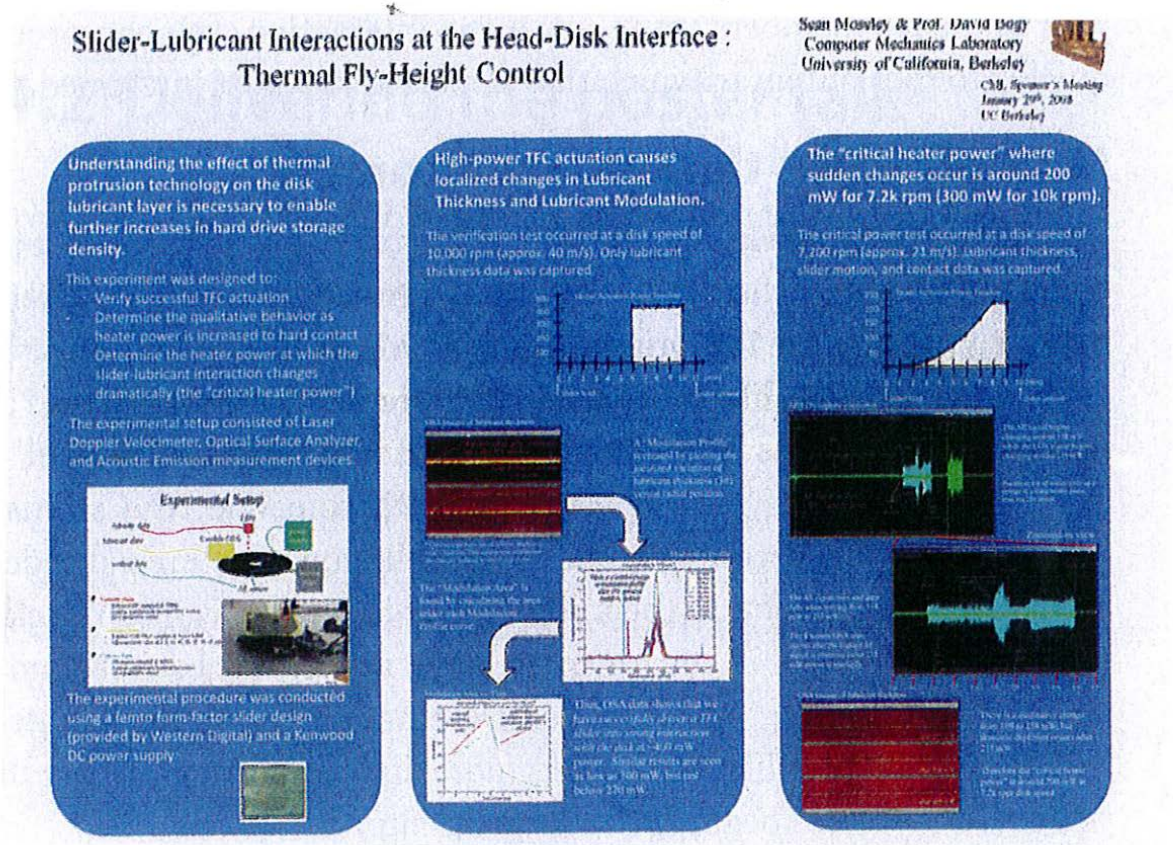


Observations/Conclusions

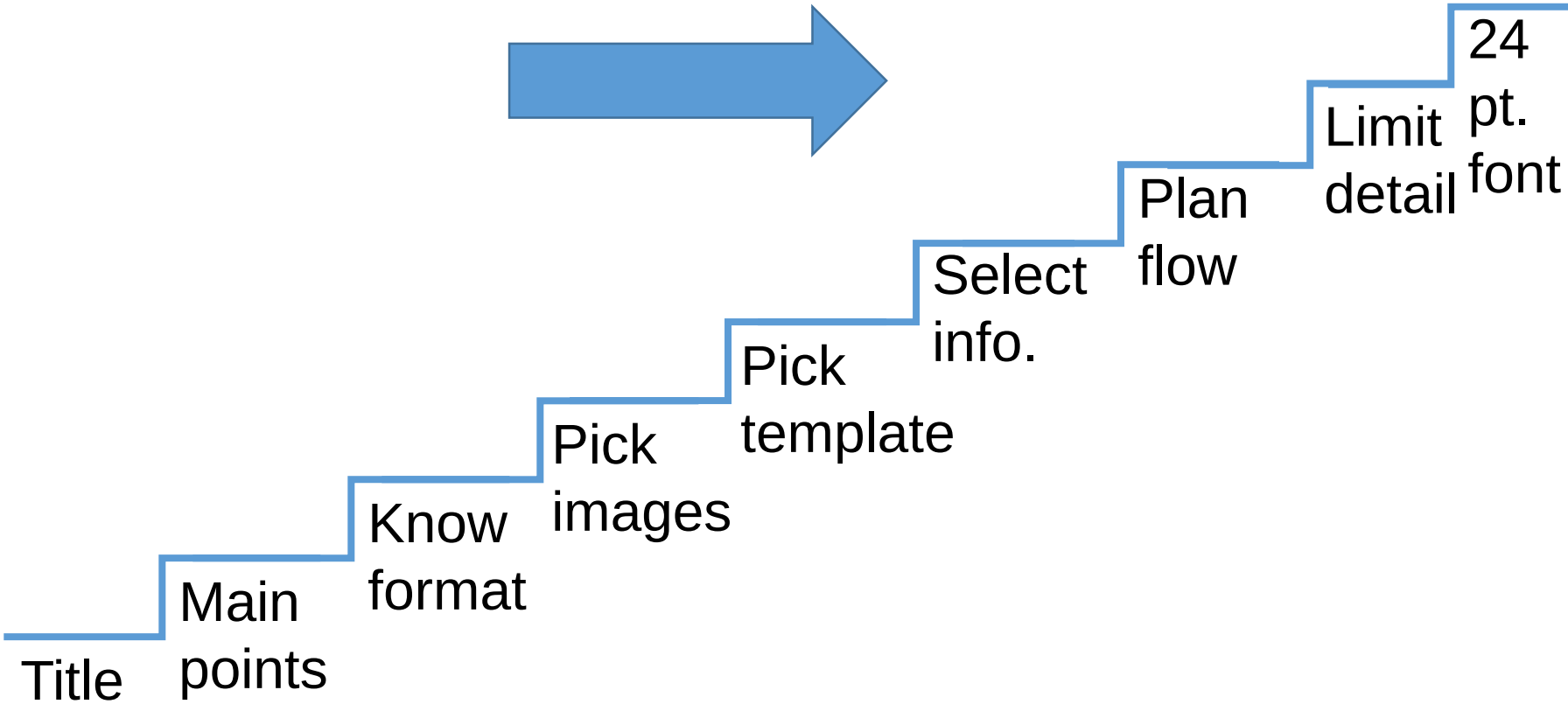
Qualitatively, we observe from the verification test (OSA data) that at 10,000 rpm, the modulation track becomes depleted immediately after the TFC is actuated with high power (greater than 300 mW) while lesser power (270 mW and below) does not produce strong changes in the interaction between slider and disk surface. The modulation area decreases immediately after high-power TFC actuation, along with the power spectrum of the Maximum Modulation Band. From the critical power test (OSA/AE/LDV data), we observe that the AE sensor picks up a change at lower power than the LDV sensor, so the AE sensor appear more sensitive. The "critical heater power" where these dramatic changes occur is around 300 mW for 10,000 rpm and 200 mW for 7,200 rpm disk speed.

Unprofessional Poster Design

Effective Poster Design



Poster Planning Steps



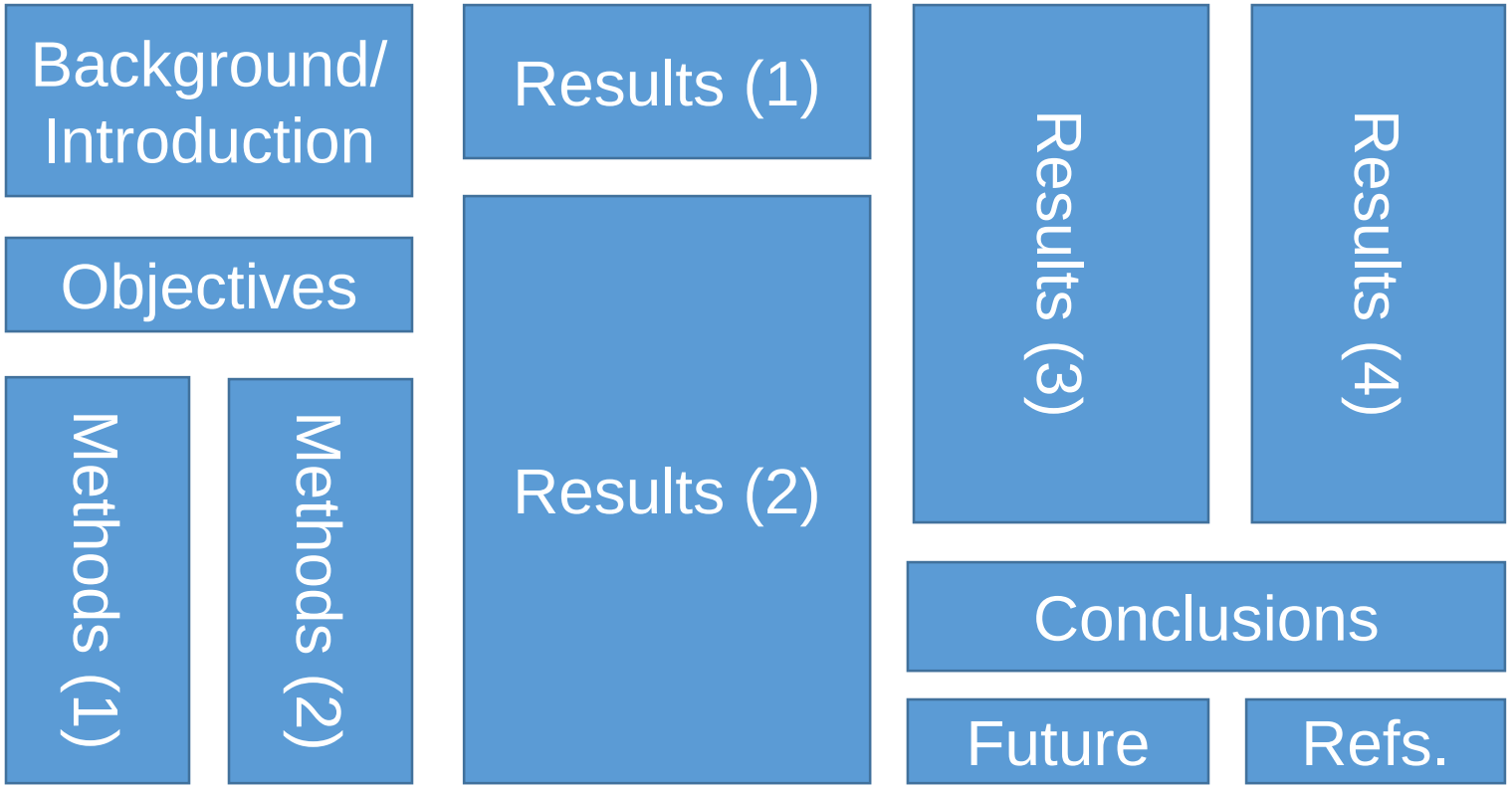
Poster Negatives

- Too much text & too small font size
- Poor organization
- Too crowded
- Poorly reproduced/enlarged images
- Interference from color/background
- No ‘take-away’ message

Think Visually

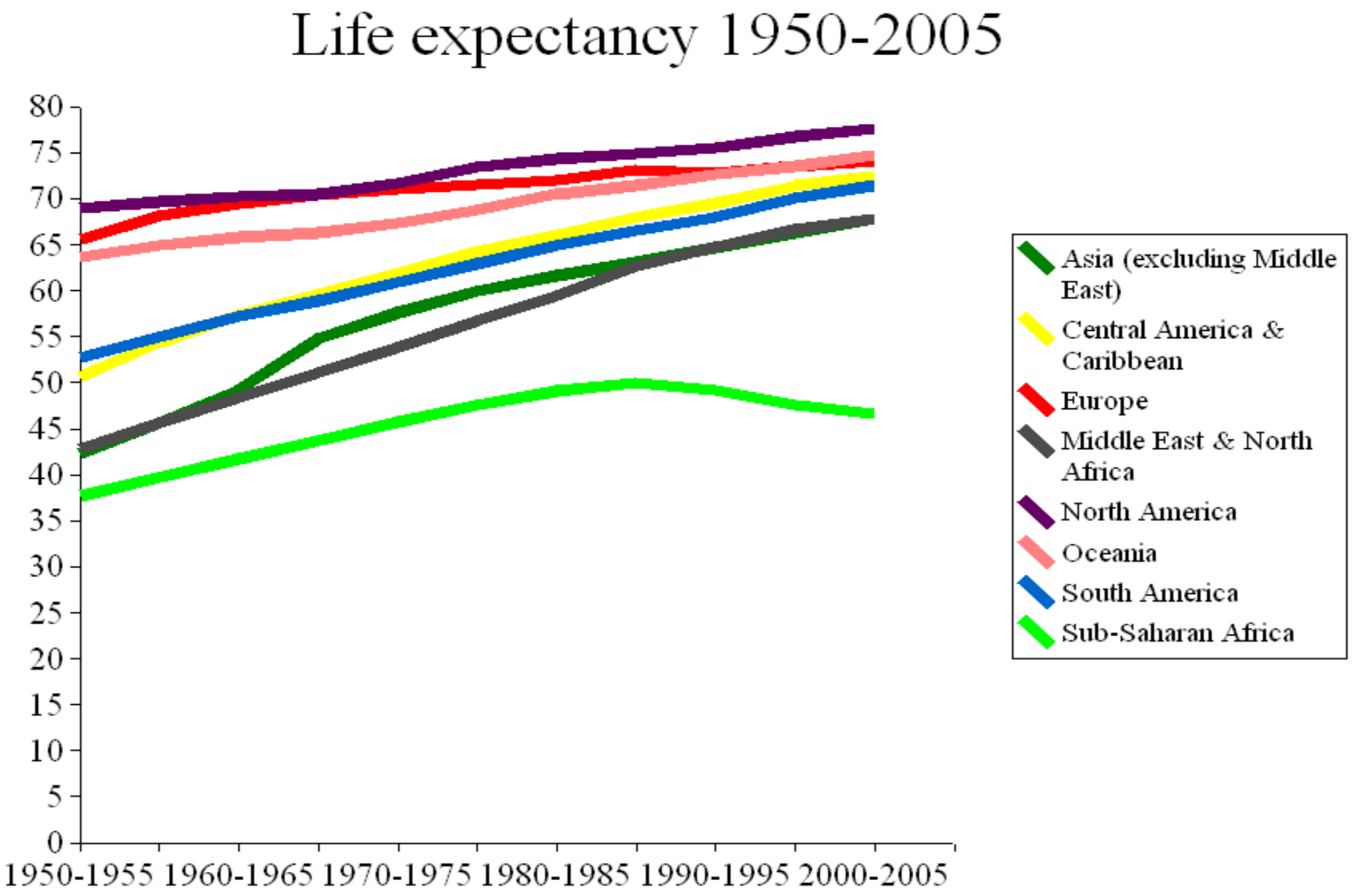
- Avoid large blocks of continuous text
  - Use bullet points
- Create a logical flow of information with boxes and headings
- Include relevant, colorful, clearly labeled, and legible images
- Remember that white space is good

Poster Presentation Design

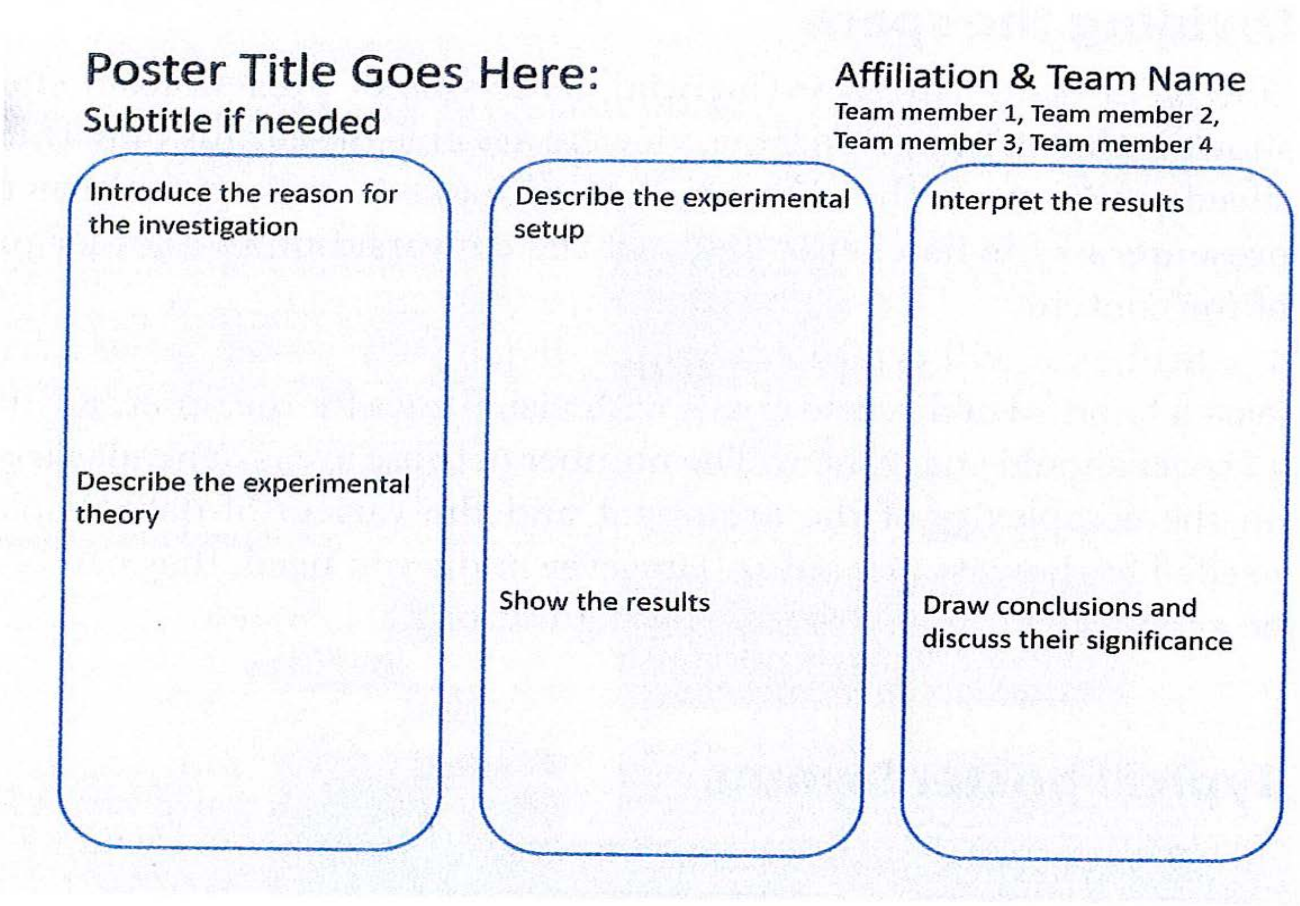


Common TAIMRAD headings

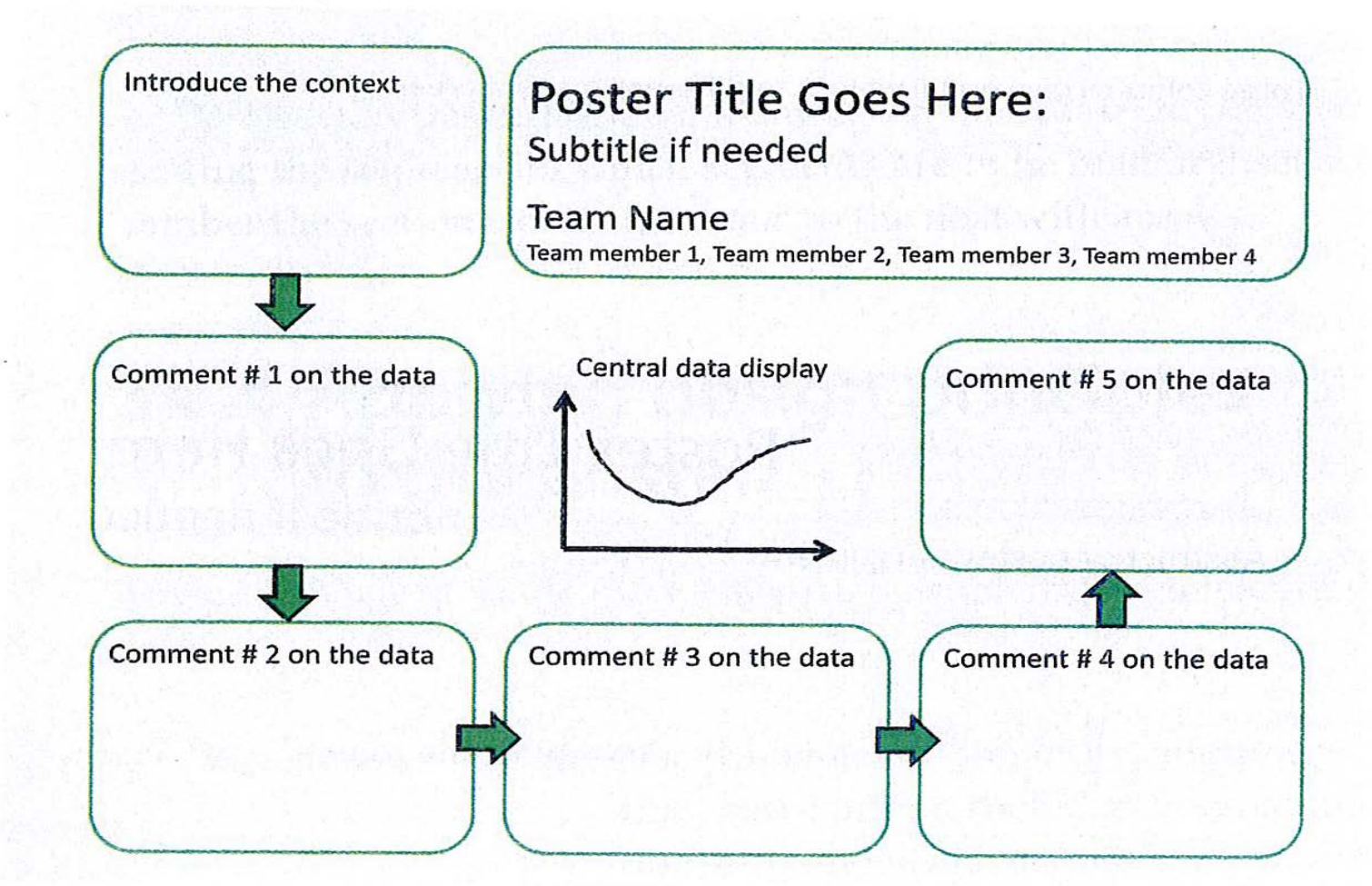
Bad Line Graph



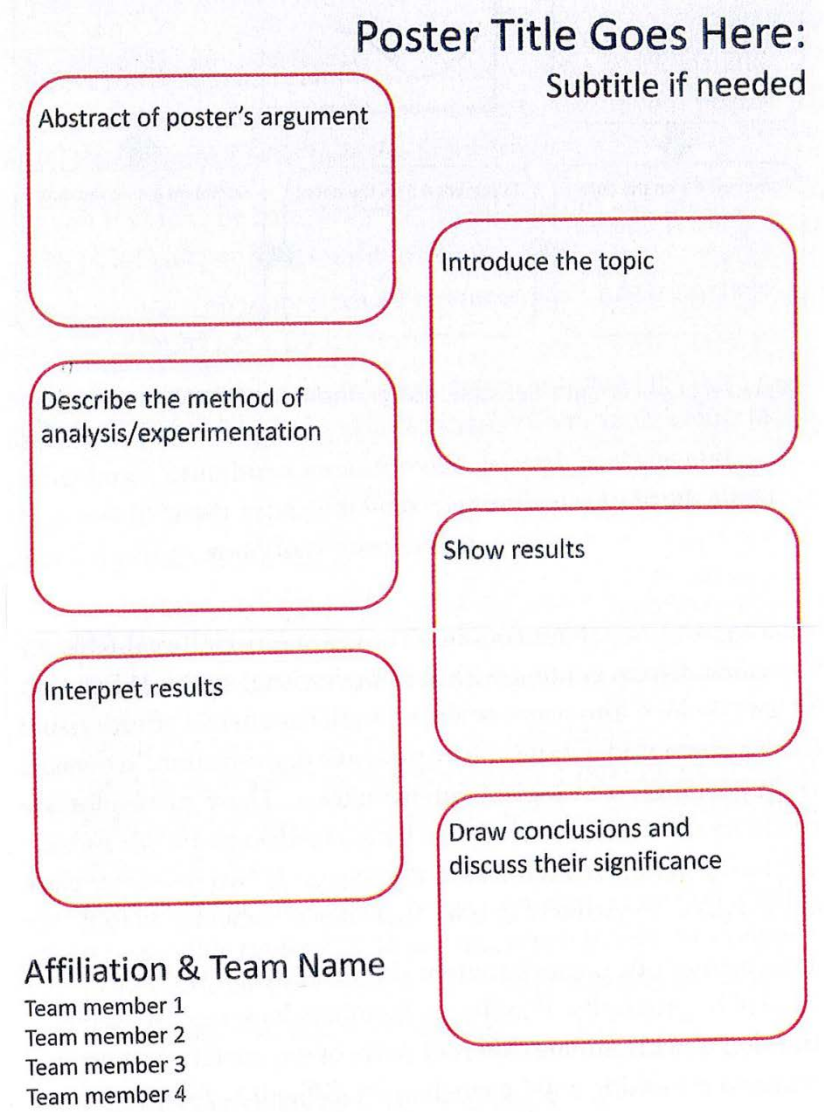
Layout for Equal Content



Radial Layout for Single Main Visual Display



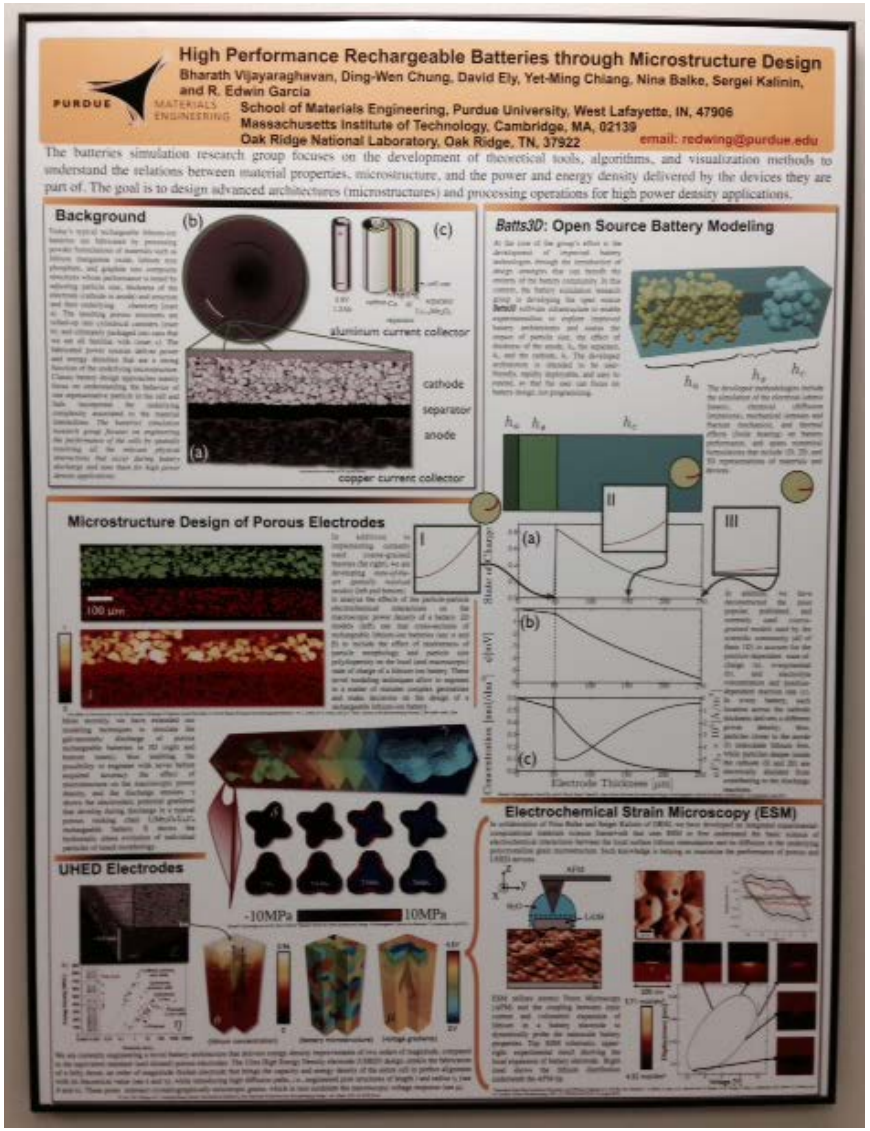
Staggered Layout for Steps



The Engineering Communication Manual, pp. 447-449

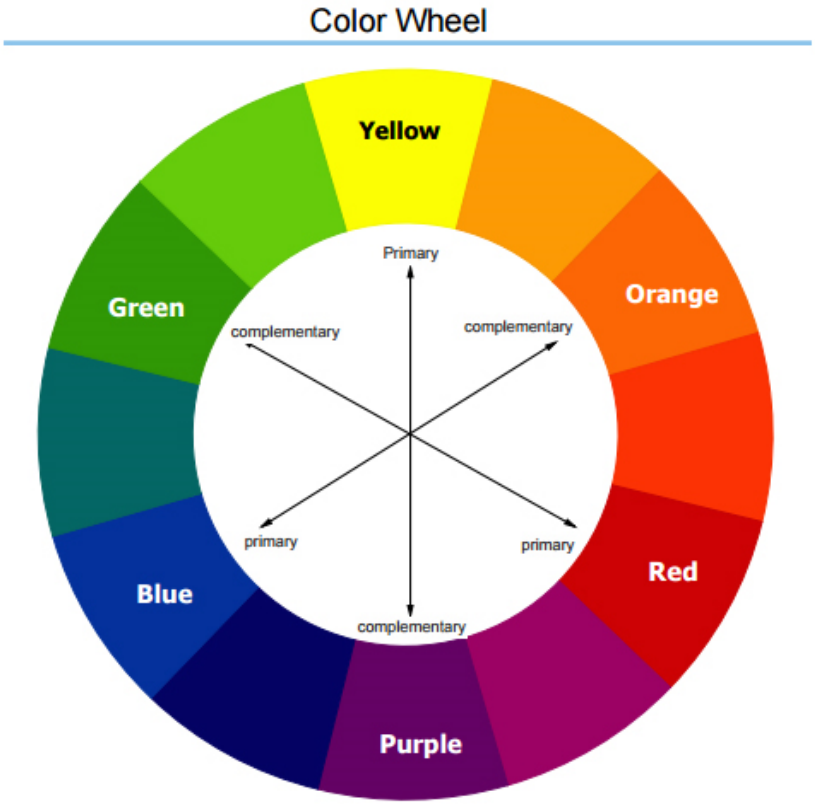
Poster Templates

MSE frequently uses this portrait template



Poster Design Principles

- Proximity
  - Related elements
- Alignment
  - Left or center justify
- Repetition
  - Design elements
- Contrast
  - Different fonts
  - Contrasting colors or ones with meaning



Poster Font Advice

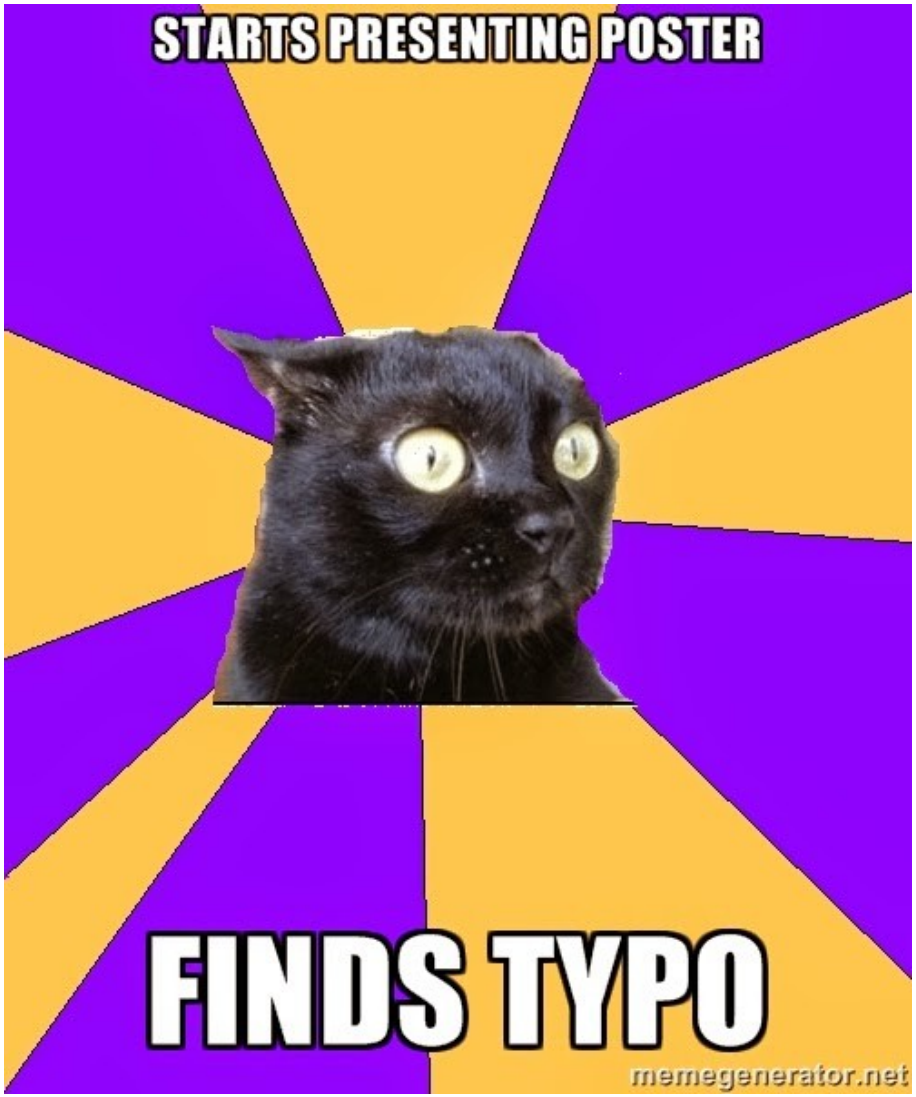
- ≥ 18 pt. (can be read from 6’-9’ away)
  - 24 pt. for text, bigger for headings
- Sans serif font for titles/headings
  - Arial or Helvetica
- Serif font for text
  - Palatino or Times New Roman

Be consistent in font style & size for same place in hierarchy

Ethical Considerations

- Only actual authors' names belong
  - Don't list 'ghost' authors
- Use citations (in conference-appropriate style) for
  - Summarizing, paraphrasing
  - Use of visuals created by others

Proofreading is Necessary

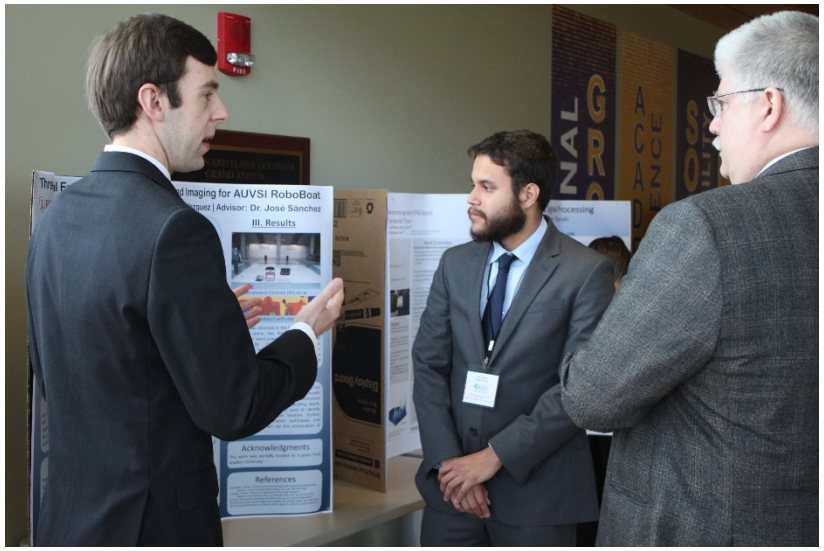


Poster Guidelines & Resources

- Vary according to the conference
  - Check poster specs!
- Google for guidelines for creating a poster using PowerPoint 2007, 2010, 2013
- Check out YouTube for numerous instructional videos

Audience Considerations

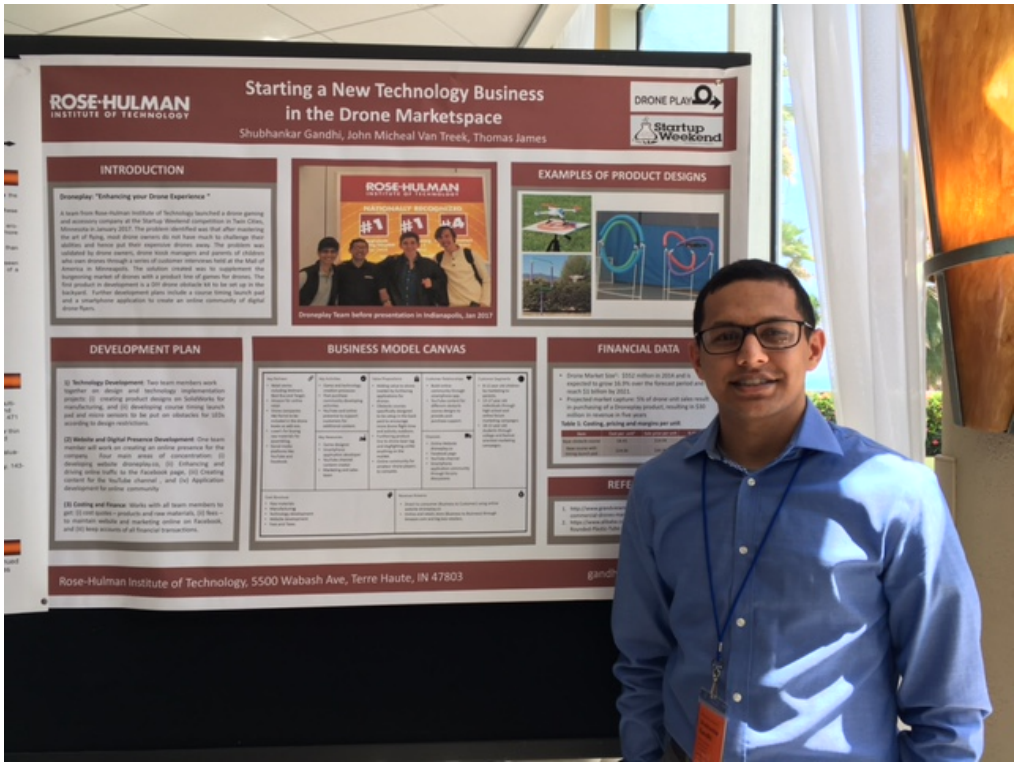
- Who are they?
- How do you find out?
- What is the impact of audience awareness on the poster?



Next Session

- Learn about delivering a poster presentation
- Review several authentic conference posters

Winning undergraduate poster from the 2017 ASEE Zone II Conference in San Juan, Puerto Rico.



Poster Transportation/Set-up

- Use a rigid cardboard poster tube or borrow one
- Keep it with you during travel
- Know the logistics for displaying posters
  - Bring necessary mounting supplies
- Bring it back or trash it?

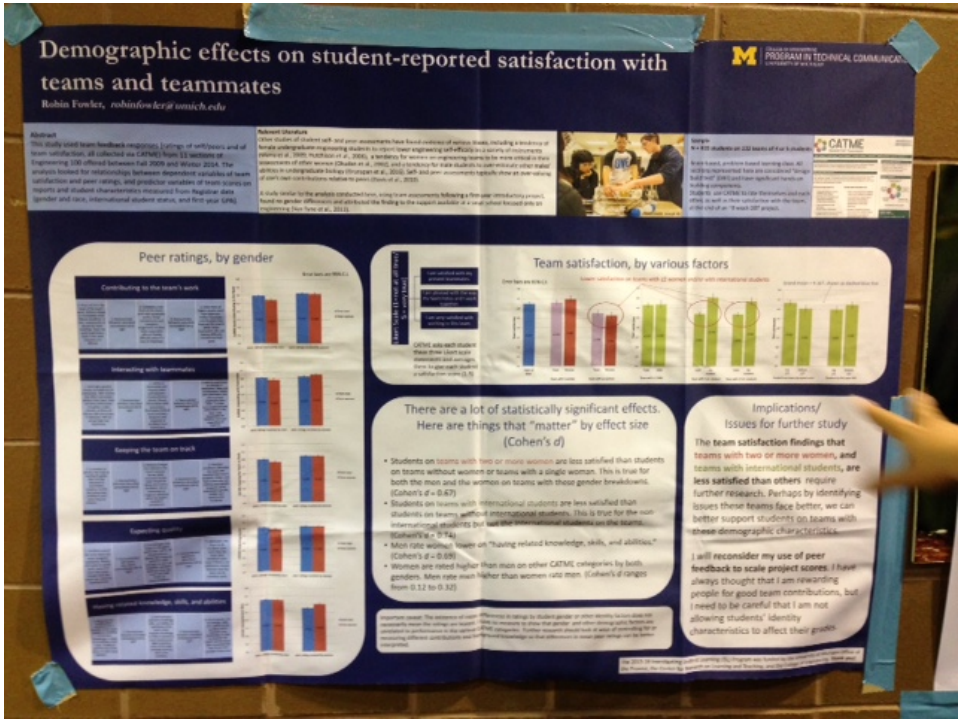
Fabric Posters

<u>Pros:</u>

- Lightweight
- Packable

<u>Cons:</u>

- Cost
- Planning time

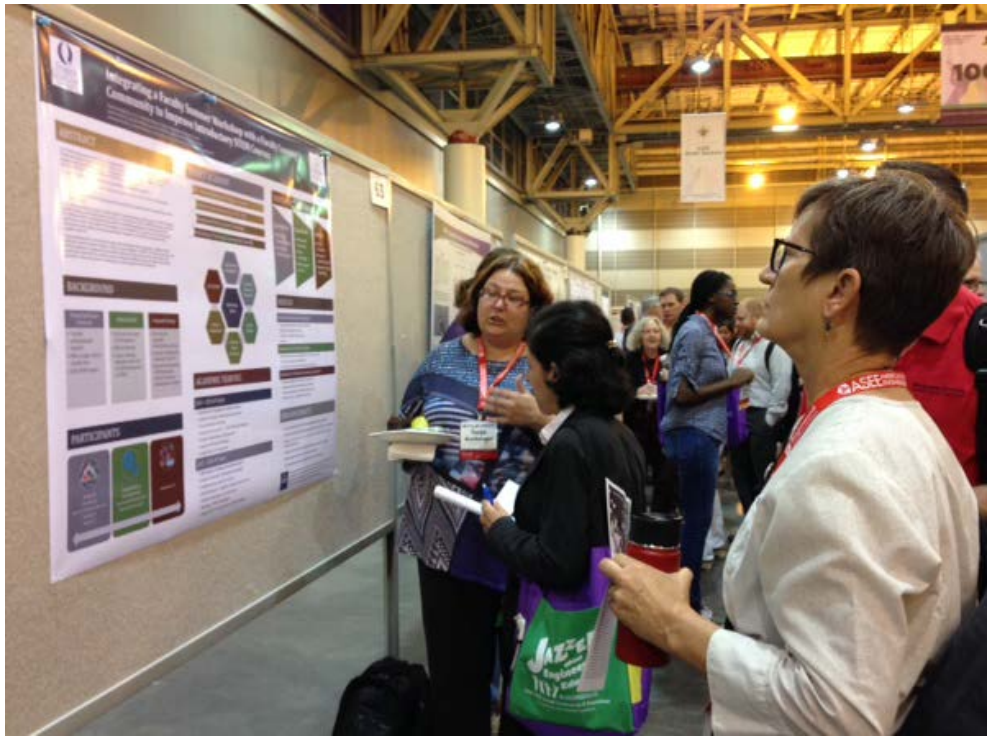


http://www.posterpresentations.com/html/fabric_research_posters.html

Environmental Logistics

- Standing for hour+
  - Wear comfortable shoes
- Lighting, temperature, noise variations

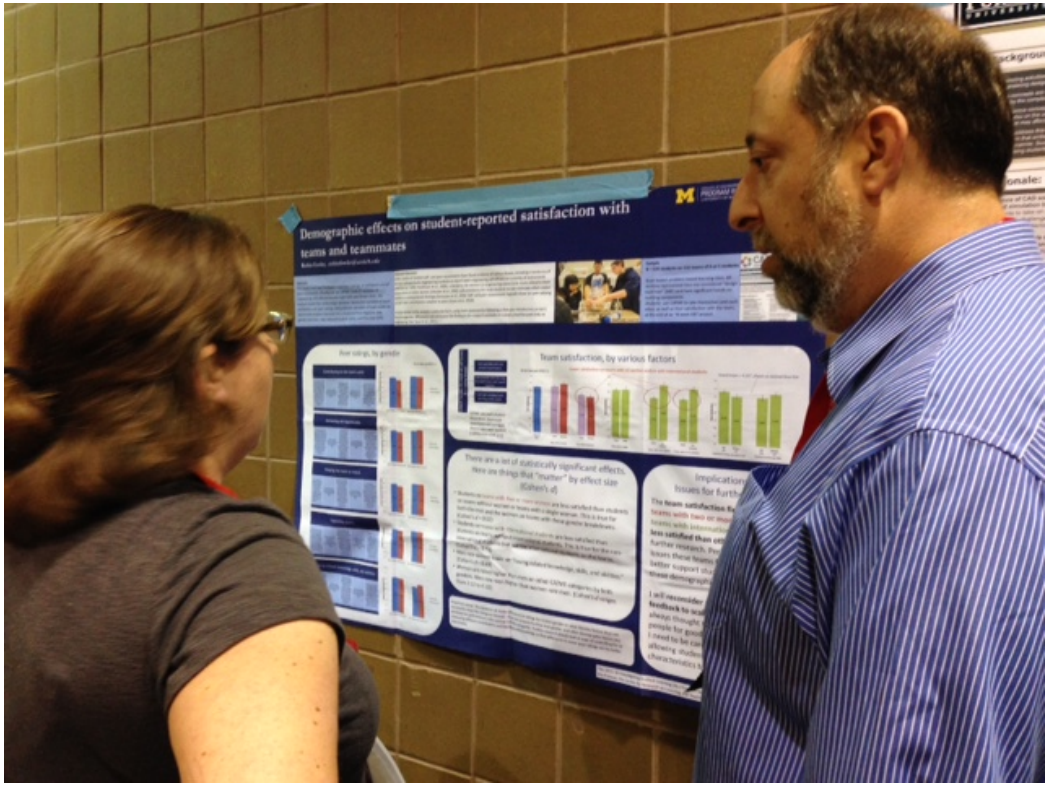
ASEE ’16 Poster Session



“Postcard” Talk Poster Session (ASEE 2016)

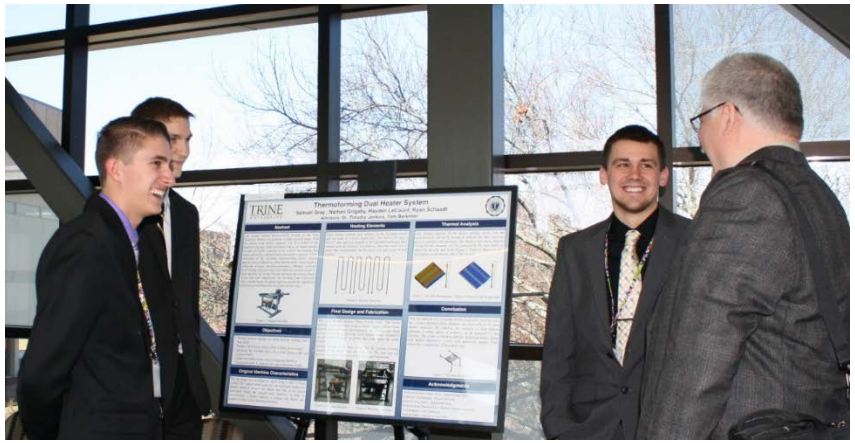
Features:

- Fewer slides
- Shorter talk
- Poster session follows



During the PosterPresentation

- The **visual appeal** of the poster draws people in; you keep them there with your **oral message**

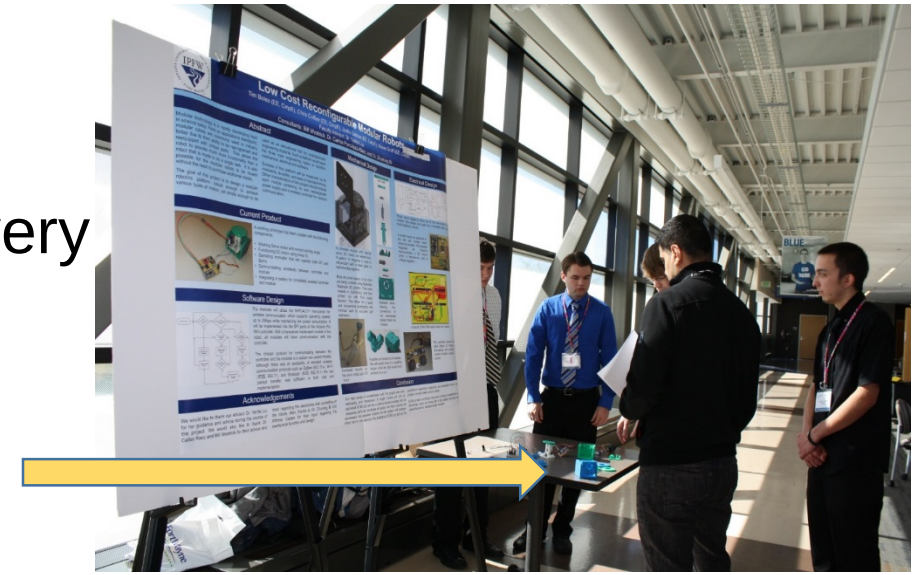


Poster Presentation Expectations

Presenters stand by poster

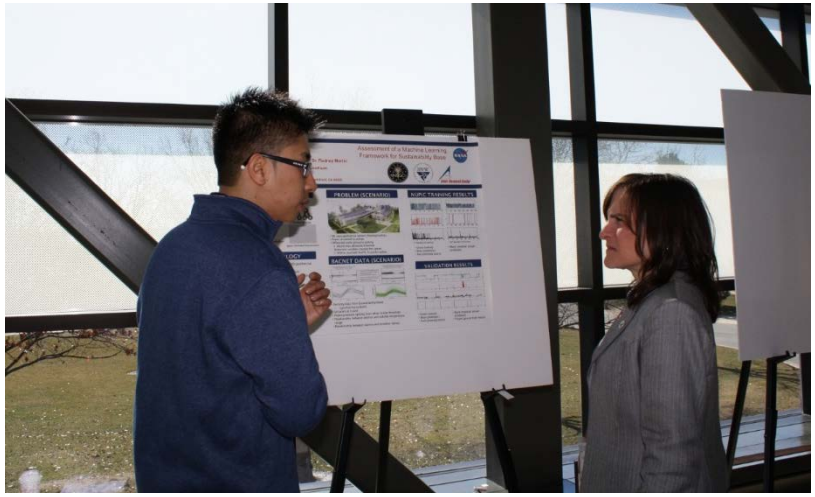
- Answer questions
- May present short talk every few minutes

Table may be provided for objects, demos, handouts



Short Talk Components

- Concise, well organized
- Stress motivation/objectives, method(s), key results, impact
- Be conversational in tone
- Adjust technical content to audience



Know your main points!

Good Communication is Crucial

Oral and nonverbal

- Eye contact
- Gestures
- Posture
- Attire

Special Challenges

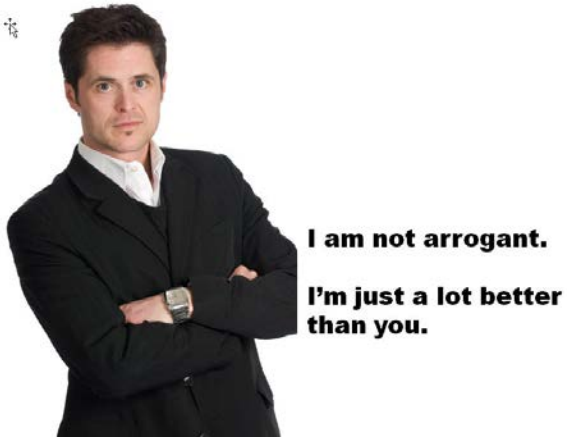
Listeners come and go & spend varying amounts of time

Presenters interact with a changing, diverse audience

- Expect interruptions
- Be flexible

Poster Session Problems

- Presenter involved in conversation unrelated to poster
- Presenters who are
  - Arrogant
  - Overzealous
  - Uninviting
  - Not available for questions



Adapted from a survey done at an American Psychological Association meeting, www.isanet.org/Portland/posterguide.html

Professional Behavior Tips

Be early, stay the whole time

Offer business cards, handouts

Wear a nameta g

Bring a notebook

Greet viewers with smile, “hello”

Don’t talk with one person, ignore others

Remove poster at the end