

DESIGNING, CRITIQUING, & PRESENTING RESEARCH POSTERS

Undergraduate Research Opportunities in Computing (UROC@SoIC)



**SCHOOL OF INFORMATICS
AND COMPUTING**

INDIANA UNIVERSITY
Bloomington

AGENDA

1. Expected Outcomes
2. Research Poster Design Brainstorming Activity
3. Research Poster Design Considerations & Tips
4. Research Poster Critique Brainstorming Activity
5. Research Poster Critique Considerations & Tips
6. Research Poster Critique Activity
7. Research Poster Presentation Brainstorming Activity
8. Research Poster Presentation Considerations & Tips

AGENDA

9. Questions?

EXPECTED OUTCOMES

1. Greater understanding of how to effectively design a research poster
2. Ability to constructively critique a research poster
3. Ability to effectively present a research poster

RESEARCH POSTER DESIGN BRAINSTORMING ACTIVITY

- Why create a research poster?

REASONS TO CREATE A RESEARCH POSTER

- To provide visual representation to communicate research ideas
- Engage others in discussion
- Share and summarize your work and research contributions
- Receive feedback on your research
- Generate contacts

RESEARCH POSTER DESIGN BRAINSTORMING ACTIVITY

- Identify the major sections that should be included in a research poster

RESEARCH POSTER CONTENT

- Title
- Authors and Affiliations
- Introduction
- Objectives/Goal/Research Question/Problem
- Methods
- Data and Results
- Conclusions/Implications
- Future Work
- References and Acknowledgements

**RESEARCH POSTER DESIGN
BRAINSTORMING ACTIVITY**

- Identify research poster design considerations

RESEARCH POSTER DESIGN CONSIDERATIONS & TIPS

Consideration #1: Choose poster style

- one large poster (such as 33 x 44)
- individual columns (such as three 11 x 48)
- individual pages (such as twelve 8 x 11)

Consideration #2: Choose program to use for designing the poster (i.e. PowerPoint, LaTeX, FrameMaker, Photoshop, etc.)

RESEARCH POSTER DESIGN CONSIDERATIONS & TIPS

Consideration #3: Poster Text

- K.I.S.S. - Keep it short and simple
- Remove all non-essential information
- Attract visual attention: Use graphics
- Try for
 - 20% Text
 - 40% Graphics
 - 40% Empty Space
- Left align text
- Double space



RESEARCH POSTER DESIGN CONSIDERATIONS & TIPS

Consideration #3: Poster Text (continued)

- Pick ONE font and stick to it

Suggested Font Sizes

1. Title 96 point

NOTE: It should be easy to read from 15 feet

1. Authors 72 point
2. Affiliations 36-48 point
3. Section headings 36 point
4. Text 24 point
5. Acknowledgements 18 point

RESEARCH POSTER DESIGN CONSIDERATIONS & TIPS

Consideration #3: Poster Text (continued)

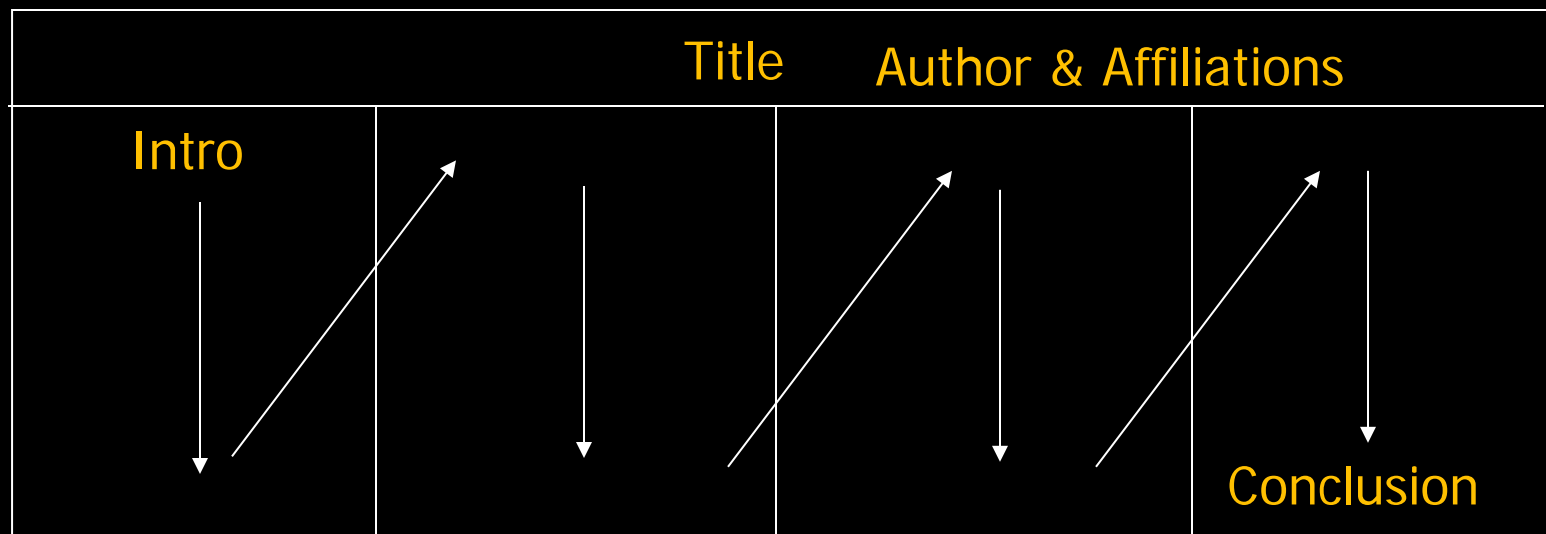
- Avoid Italics
- Use large/colored font for emphasis
- Use bulleted points rather than paragraphs
- AVOID too much text

GOAL: Make your poster easy to read

RESEARCH POSTER DESIGN CONSIDERATIONS & TIPS

Consideration #4: Poster Layout

- Typically, use 3 to 5 columns
- Arrange information vertically from top left corner to bottom right center (This makes it easier to read, without having to move back and forth).



RESEARCH POSTER DESIGN CONSIDERATIONS & TIPS

Consideration #4: Poster Layout (continued)

- Sketch the layout before you start
 - Determine logical sequence for material
 - Organize information into sections
 - Number sections to make flow obvious

GOAL: Make your poster easy to understand

RESEARCH POSTER DESIGN CONSIDERATIONS & TIPS

Consideration #5: Amount of information

- Title
- Authors and Affiliations
- Introduction
- Method(s)
- Data and Results
- Conclusions and Future Work
- References and Acknowledgments

GOAL: People should be able to read your poster in a few minutes

RESEARCH POSTER DESIGN CONSIDERATIONS & TIPS

Consideration #6: Clarity

- Questions a research poster should address:
 - What's the research question(s)?
 - Why is this question important?
 - What strategy (method) is used?
 - What are the results?
 - Why are these results unique/important?
 - How does this relate to other research?
 - What are the next steps?

GOAL: Your poster should be able to stand alone – verbal details only needed for details

RESEARCH POSTER DESIGN CONSIDERATIONS & TIPS

Consideration #7: Time

- Allow yourself lots of time – At least 1 week!
 - Do not wait until the last minute – things will inevitably take longer than planned
 - Remember to allow time and money for printing/laminating

Consideration #8: Poster title

- Make it interesting
- You want to lure people from a distance
- If title is too long, shorten it. Don't reduce the font size.

RESEARCH POSTER DESIGN CONSIDERATIONS & TIPS

Consideration #9: Authors

- Include first names
- Omit middle initials and titles
- Include academic affiliation – but omit city and province

Consideration #10: Colors

- One background color to unify poster
- Stick to muted colors
- Avoid red/green combinations because red/green color blindness is common
- Don't overuse color
- Be consistent

RESEARCH POSTER DESIGN CONSIDERATIONS & TIPS

Consideration #11: Graphics

- Make large enough for viewing from at least 3 feet away
- Text should support graphics, not vice versa
- Use heavier lines in tables and graphs for easier viewing

Consideration #12: Final Touches

- Proofread
- Spellcheck
- Get feedback before printing
- Get feedback in time to make changes

**RESEARCH POSTER CRITIQUE
BRAINSTORMING ACTIVITY**

- Identify the appropriate criteria to evaluate a research poster

RESEARCH POSTER CRITIQUE CONSIDERATIONS & TIPS

- Does the poster state the problem or research question(s)?
- Does it clearly state the significance of the research?
- Are the research approach or methods clearly presented?
- Are the research results/findings clearly presented?
- Is the organization on the research poster appropriately organized? (Flow, structure, text, layout, clarity)

RESEARCH POSTER CRITIQUE ACTIVITY

- Using the sample research judging rubrics, your own critique criteria, and the critique considerations discussed – critique a research poster.

RESEARCH POSTER CRITIQUE ACTIVITY

- Rubric #1: Judging Rubric for Poster Presentation of Research

"adapted from the rubric developed by the American Society for Microbiology and the Committee for the Annual Biomedical Research Conference for Minority Students (ABRCMS)."

- Rubric #2: Poster Rating Criteria

**RESEARCH POSTER
PRESENTATION BRAINSTORMING
ACTIVITY**

- Identify the major sections that should be included in a research poster presentation
- Identify research poster presentation considerations

**RESEARCH POSTER
PRESENTATION
CONSIDERATIONS & TIPS**

Consideration #1: Know your audience

- a. Experts
- b. Various disciplines
- c. General audience/laypersons

Consideration #2: Give an overview of your research in 3-5 minutes

Consideration #3: Practice, Practice, Practice to ensure that the presentation flows and monitor your time

Consideration #4: Present to your peers and get feedback

**RESEARCH POSTER
PRESENTATION
CONSIDERATIONS & TIPS**

Consideration #5: Make eye contact

Consideration #6: Avoid jargon and acronyms

Consideration #7: Speak clearly, concisely, and slowly. Avoid too much detail unless asked.

Consideration #8: Allow people time to look at your poster – stand to the side of the poster

**RESEARCH POSTER
PRESENTATION
CONSIDERATIONS & TIPS**

Consideration #9: Allow and anticipate questions

Consideration #10: Rehearse possible answers – refer to the questions a research poster should address

Consideration #11: Listen carefully and wait for the person to finish the question

Consideration #12: Restate/rephrase the question, answer the question, and ask if you've answered the question

**RESEARCH POSTER
PRESENTATION
CONSIDERATIONS & TIPS**

Consideration #13: Consider having handouts

- a. Miniatures of poster
- b. Additional details not included in poster

Consideration #14: Remember to hand out business cards

Consideration #15: If you have a table, put some candy on it to attract visitors

**RESEARCH POSTER
PRESENTATION
SAMPLE JUDGING CRITERIA**

Score: 1- Presenter appears unprepared, unable to convey ideas

- Presentation is not concise, too much / little information given
- Inappropriate presentation style

Score: 2- Presenter appears somewhat prepared, attempts to convey ideas

- Presentation is fairly concise, information usually appropriate
- Presentation style somewhat appropriate

Score: 3- Presenter shows clear understanding of topics, well prepared

- Presentation is concise, useful information conveyed
- Appropriate presentation style

Score: 4- Presenter shows insightful knowledge, easily able to convey ideas

- Presentation is extremely concise, appropriate information given
- Presentation style extremely appropriate

RESOURCES

Creating a poster using LaTeX:

<http://www.astro.gla.ac.uk/users/norman/docs/posters/>

Creating a poster using PowerPoint:

<http://www.cmer.wsu.edu/~yonge/ce465/poster.pdf>

REFERENCES

http://www.kumc.edu/SAH/OTEd/jradel/Poster_Presentations/110.html

<http://www.mitacs.ca/AC2005/index.php?section=tips>

<http://www.siam.org/siamnews/general/poster.htm>

<http://www.acm.org/crossroads/xrds3-2/posters.html>

GREAT REFERENCE

<http://www.cns.cornell.edu/documents/ScientificPosters.pdf>



Questions?

OPEN ASSESSMENT

- What did you learn about designing and critiquing research posters?
- What was most valuable or immediately valuable about today's session?