Status Check
- ☐ Presentation venue?
- ☐ Poster experience?
- ☐ Comfort level?
- ☐ Concerns?

Today's goal

Erl

So you want to present a
Research Poster

Use this startup guide to ▪ inspire conversation with your Primary Investigator (PI) ▪ jump-start a session with a communication consultant ▪ reflect and iterate as you work at your own pace
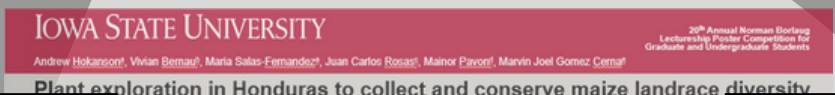
Page 1:
Designing the Poster

Before you start, CONSIDER (consult w/PI)
- Title, design, and organization: What are best practices or notable conventions in my discipline or lab?
- Authorship and acknowledgments: Who should I credit, and how?
- Intellectual Property/unpublished results: What's OK to share?
- Most important:

What is the purpose of my research?
What do I want to communicate about it?

Then draft, seek feedback/reflect, and iterate until you are done.

IOWA STATE UNIVERSITY

Andrew Hokanson, Vivian Bernau, Maria Salas-Fernandez, Juan Carlos Rosas, Mainor Pavon, Marvin Joel Gomez Cerna

20th Annual Norman Borlaug Lectureship Poster Competition for Graduate and Undergraduate Students

Plant exploration in Honduras to collect and conserve maize landrace diversity

Introduction

Purpose	Provide relevant background to contextualize the research; Identify the motivation such as a gap in the literature or a problem in the real world; Articulate the study purpose including research question or hypothesis
Notice	The Introduction provides limited, relevant background to and motivation for the project. There is a clear purpose statement by saying: The purpose of this study is to...
Reflect	What previous research do I need to include? How do I keep this limited and focused? What is motivating my research? What is my research question/hypothesis?

Visual Organization

|	
Purpose	Should assist and direct the eye by using cohesive and purposeful color, font size, spacing, columns, and grouping of information.
Notice	The headers align with the IMRD/C structure and help meaningfully group the information. The colors are limited and consistent across the poster. A light background and dark text promotes accessibility. Meaningful images are used which align with the content.
Reflect	How will I organize the information based on the IMRD/C structure? How will I chunk information? How many columns will I use? What colors am I using and why?

Methods

Purpose	Identify participants, data; Describe methodological procedure and tools/equipment; Describe data analysis
Notice	The methodology section presents the proposed data collection, the collection location, and the proposed collection protocol. Because this poster is describing the proposed research, the methods take the majority of the space.
Reflect	What characteristics of the data are important to share? What are my methods? How do I communicate them in a logical way? How much detail do I need to provide on the poster? What analysis did I use?

Results

Purpose	Provide findings from the study, including charts, figures, tables which answers the research question or addresses the hypothesis
Notice	Because this is a work in progress, there are not yet results. If you are reporting results, this section would take up more space.
Reflect	Am I at a stage in my research where I will have results? If so, which results will I share? Will I include graphs, charts, tables? How will I make these meaningful for the audience? How will these results answer my research question or attend to my hypothesis?

Discussion/Conclusion

Purpose	Identify directions for future research, limitations, implications, overall conclusions
Notice	The poster focuses on the potential implications of the work, showing the benefit of this research.
Reflect	What are the main takeaways from my research? What are the implications and value of my research? Do I have next steps? If so, do I want to communicate them?

Ready to practice?

Research posters are a unique communication format that both **shares key findings and (often) facilitates interactive presentation.** Thus, you should employ strategies allowing the poster to both communicate main ideas on its own and serve as a visual aid when conversing with your audience.
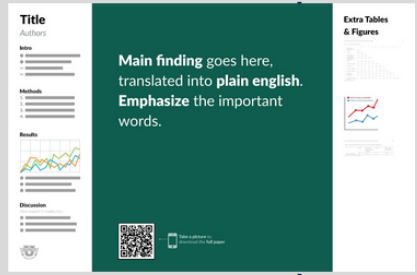
The BetterPoster format puts the main idea front and center. Ask your PI if this approach is a good choice for your discipline and goals.

Consider standalone strategies. *How will the audience experience your poster when you're not there?* A summary written for passers-by, linked content (e.g. QR code to a video), or visually emphasized key statements forming a "self-guided tour" could encourage a mental conversation between audience and poster.
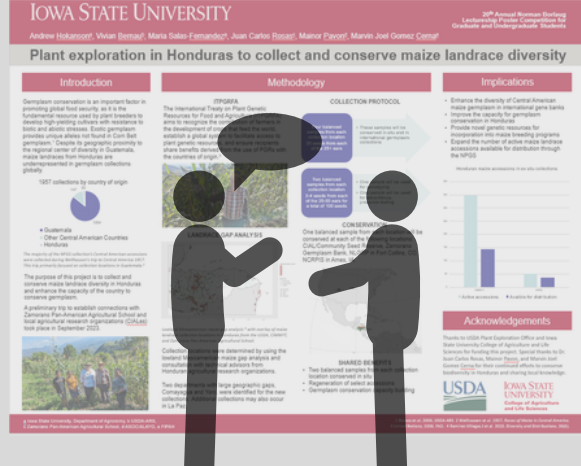
Page 2: Presenting the Poster

Before you start, CONSIDER (consult w/PI)

What main idea do I want my audience to take away from their interaction with me?

Then prepare spoken content options, seek feedback/reflect, and practice until you feel prepared.

Engage & Gauge Audience

Purpose
Invite audience to engage with your poster in whatever way they prefer and matches their knowledge/interest levels.

Examples
- Asking passerby "Hi, how are you enjoying the conference?" or "Hi, have you heard of CryoEm/Bioreactors/Behavioral Economics?"
- Asking someone who has stopped to read your poster, "Would you like me to give you a brief overview of this project?"

Reflect
What are some no-pressure ways I might invite attendees to stop at my poster and also show that I am ready to speak with them (if they like)?

What are potential audiences I might encounter (non-scientist, scientist in a different field, scientist in my field) and how might the venue influence this? How might I gauge which type my current audience is?

From a zoomed-out, "10,000-foot" perspective that my audience could immediately grasp:
- What's unique/interesting about my research?
- Why does it matter to society or science?

Provide Adapted Overview

Purpose
Concisely (1-2") communicate your main idea to your specific audience. This likely includes primary purpose, methodological approach, and overall findings.

Examples
- Opening with "takeaway message" that piques interest and prepares audience for IMRD details.
- Noticing and adapting to nonverbal feedback (e.g. nodding) or requesting feedback as needed (e.g. asking "Are you familiar with [method]?" to gauge whether explanation is needed before moving on).

Reflect
- What is the most concise yet accurate way to express my main idea?
- What aspects of my research do I know so well that I may forget my audience doesn't?
- How might I adapt my content, terms, and approach to serve THIS particular audience?
- What figures, analogies, gestures, or examples might help me explain unfamiliar or key ideas?

Deepen Interaction

Purpose
Anticipate, invite, and field Qs in a way that facilitates meaningful interaction.

Examples
- Asking "Is there any part of the project you'd like me to discuss more in-depth?"
- Clarifying unclear Qs (e.g. "It sounds like you're asking about ___, is that correct?")
- Managing "hard" Qs (e.g. "That's a great Q I hadn't considered. What do you think?" or "We haven't had time to explore that yet. My best guess is ___.")

Reflect
What Qs do you anticipate? How might you address Qs about "weaknesses"/holes?

What "points of interest" might you prepare for audience wanting more depth? Some ideas:
- I: Study motivation/gap in literature
- M: Learned? Aspects new/innovative?
- R/D: Unexpected? Analysis approach?
- C/Implications: What's next?
- Figure: Describe in more detail

Success Plan
☐ Needs discovered?
☐ Qs for PI/colleagues?
☐ Feedback I'll seek?
☐ What will I practice?

My next action

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