

How to design a scientific poster

- General principles for communicating science
 - o Keep the audience in mind
 - Accessibility!
 - o Keep the medium in mind
 - o Storytelling

DESIGNING A POSTER – THE BASICS

- Content structure:
 - o Introduction
 - motivation for study
 - explicitly stated research question
 - o Methods
 - Graphics & bulletpoints to describe task, setup, etc.
 - o Results
 - Data plots of results
 - Few bullet points if necessary
 - o Conclusions
 - o Acknowledgements, references, contact
- Graphical structure:
 - o Check formatting instructions
 - Portrait vs. Landscape
 - Maximum size
 - o Break up space
 - o Follow natural flow
 - Left-to-right, top-to-bottom
 - o Large title that gives away main message
 - o Graphics > text
 - Plots with predictions for Introduction
 - Drawings, diagrams for methods
 - Data plots for results

GRAPHICAL DESIGN

- Color
 - o Help make your story easier to follow
 - one color per concept, condition, ...
 - Intelligibility > visual appeal
 - o Accessibility for the color-blind
 - use redundancy, color should not be the only thing to convey certain meanings
 - check with color-blindness simulators: <https://www.color-blindness.com/coblis-color-blindness-simulator/>
- Scale and proportions:

- Text-to-figure ratio
- Large enough fonts
 - Title: 70-100 pt
 - Headings 40-60 pt
 - Body of text 30-40 pt
 - Figure descriptions, references 20-25pt
- Whitespace between sections and graphics
- Simplicity:
 - Simple color schemes
 - Common fonts

TOOLS

- For the poster
 - PowerPoint
 - Google Slides
 - Adobe Illustrator
 - Markdown languages (RmarkDown, LaTeX)
- For diagrams and illustrations:
 - Inkscape
- Graphics databases:
 - <https://biorender.com/>
 - <https://thenounproject.com/>
- Data graphics
 - R, Matlab, Python
 - Excel
- Printing
 - Arrange ahead of time
 - Choice of materials:
 - Paper (prettier, harder to transport)
 - Fabric (easy to transport)
- Transport

PRESENTING

- Be ready to walk visitors through your poster
 - 2-5min full story
 - „elevator pitch“
 - Practice
- Sources and further reading
 - <https://blog.addgene.org/guide-to-designing-the-scientific-poster>
 - <https://www.calliechappell.com/blog/scientific-poster>