

Flipped Science Fair - Benedetti Supplemental Material 2: Poster Guide.

FSF Poster Guide

General

Try to *minimize the text* as much as possible. Substitute graphics, flowcharts, and/or schematics for blocks of text. You'll be guiding the students through your poster so they won't need to read much on their own. In fact, they often become overwhelmed if they see too much text.

We're planning to borrow tablets so you can incorporate animations if you find them helpful. If you'd like to bring props, demos, etc, please let us know soon so we can accommodate.

Maintain consistent color schemes. If a cartoon of a cell with a red outline is your treatment group, use red bar graphs for that group in your results section.

Again, minimize text as much as possible, we can't stress this enough! This is not a poster that is meant to exist on its own without your presentation, so use it as a way to augment your story rather than encapsulating every portion of the story on its own.

Title

Make your title punchy but understandable. Encapsulate the big takeaway(s) from your poster. It's okay if it has some science-heavy terms so long as you explain them as you go along.

Problem Statement

Two-three sentence summary of the work with a focus on the big picture. No more than this, seriously!! Let your narrative fill in the complicated blanks, this is not a standalone poster, but merely a way to emphasize your key points. If you can work a graphic (think graphical abstract) into your summary that would be great but it's not necessary/feasible for all posters.

Hypothesis or Measures of Success

Clearly state your hypothesis and refer back to it during your presentation to remind the students what you were looking for during your experiments. Introducing a graphic here that illustrates your hypothesis and using an "updated" version in your conclusion that assimilates your results can be useful.

Materials

What are the key materials/equipment you need to introduce them to? For example, you don't have to explain precisely how an NMR works but focus on why you're using it and what it tells you. The goals/purpose of the material is far more important than the intricacies of how it works.

Methods

If there is no clear break between materials and methods for your poster, feel free to combine the sections.

Results

Don't inundate the students with all of the experiments you've done for your project. Pick out the pieces that are crucial to your story. Especially those pieces that you can illustrate well with

graphs, charts, microscope images, etc. If your raw data is too dense, summarize with simpler graphs and stay away from box plots. Just go for bar graphs withOUT error bars - graphs that show a general trend and tell one or two stories are better than graphs that show too much. If you're really adamant about showing complicated plots, make sure to have arrows on the graph showing what each direction means and make it clear to the students that you just want to show them what the data looks like but all they need to take away from it is x. Again, one to two big takeaways from each graph only!

Discussion

Reiterate and interpret your findings. Is this what you expected to find? A graphic summarizing your hypothesis and data can cut down on text.

Conclusions

Feel free to combine discussion and conclusions if it helps with space. Relate everything to your problem statement and explicitly state if your experiments support your hypothesis or not. Again, emphasize key points while cutting down on the amount of text is important. Use bullet points if you wish to help with this.

Future Directions

What are a few things you or someone else will do next? How does this story continue? Don't go too crazy though.

Validity/Limitations

Why are your experiments legit? This can be as simple as stating you replicated your results, etc. Also, talk about what your results do not mean (e.g. you didn't cure cancer because your results don't apply to all forms of cancer).

References

Throw a couple on here just to show that real scientists have to cite work just like they do in school.

Other Resources:

<http://blogs.lse.ac.uk/impactofsocialsciences/2018/05/11/how-to-design-an-award-winning-conference-poster/>