

Here are many of the most common comments I have been sending to most students when I review their posters. Perhaps you can use them to make sure that you don't make these mistakes before you send it to me. This will hopefully help you a LOT!! Please read all of them carefully as you can infer what part of the poster they were from and what mistakes not to make (in advance).

## **Basic Information**

Remember that ALL of the material on the poster MUST be in the past tense.

Be sure to cite every picture with a FULL citation ex. [www.labpics.com/2356b9](http://www.labpics.com/2356b9). You can use a very small (size 6-8) font for these and also use a color that does not make it stand out too much

Remember ALL of this MUST tell a “story”. You CANNOT depend on the judge hearing you and understanding or appreciating what you did, what you found and what it means.

You MUST use a mix of verbal information (your presentation) with visual bullets and very well labeled pictures/graphics/charts.

Please double check that there is absolutely NOTHING hanging off of the edge of a slide. You can do this by clicking “control” + “a” and then zoom out to check.

## **Font Size and Spacing**

The font for your main bullets should be larger than the font for your sub-bullets. The main bullets can be approximately 28 while the sub bullets could be 22 or 20. The font for the citations could be between 14-18.

The font is the same size for equal “level” bulleted text. Ex. Main bullets are all one size, while sub-bullets are all a smaller size but the same as each other and sub-sub bullets are....

The distance between the actual bullet and the first letter of the word are the same distance. You can adjust this if you “view ruler” and then highlight some text and move the slider on the ruler.

Check the (vertical) “line spacing” on this part (paragraph tool). Be sure that individual bulleted text is single spaced with more spacing between bullets.

- If you highlight a set of bullets for example

- Fact 1 blah blah
- Fact 2 blah blah ...
- Fact 3 blah blah...

Then bring up the menu and click on “paragraph” then “line spacing” and then add approx. a size 6-12 spacing after. This will spread the bullets out vertically so that they are not so squished (vertically)

- Fact 1 blah blah
- Fact 2 blah blah ...
- Fact 3 blah blah...

You may have to uncheck “Don’t add space between paragraphs of the same style”

Never break up ideas across a line break and try to never have just one word on a line by itself. These words are part of one idea and should be on the same line together. This is especially true since you use an extra line anyway. If you need to, you can just hit "enter" and push the first word of this idea down to the next line. If that causes a double-spaced line or other formatting issues then just hit "shift" + "enter" to push that first word to the next line.

## **Review of Literature**

For the Past Research (Review of Lit.) you should really have 3 diff articles that start with more basic research info and then “funnel” down to the more specific info. This will then lead (clearly) to the missing info from the prev research (Gap) and it will allow you to specifically state your Problem Statement which is covered by your goal

In general, make sure each part of the intro/background helps you to do the following:

- Explains a little of the background (“ah ha” factor)
- Catches the judge’s interest (“wow” factor)
- Leads them to want to learn more

For each of the articles you should list the words “Goals” and “Findings” and then briefly summarize those parts. This will allow you to quickly and effectively talk about each article and show how the results of one led the article. You should also have a picture, chart, graphic, etc.. from each article to help the judge visualize what your bulleted text is focused on.

IF a bulleted text or graphic does not help with these then do not include it (or at least do not waste time talking about it).

Be careful not to include bulleted text that is vague and/or not justified enough to be considered a scientific fact (bullet). You MUST be sure each of these are clear and based on scientific fact.

Try to be HYPER-CRITICAL of yourself and your poster for this...By the time you have presented the material from the start to the bottom of the review of literature, are you SURE that the judge will....

1. UNDERSTAND the background/general area?
2. UNDERSTAND how one article (prev. research) flowed into the next (funnel effect)?
3. APPRECIATE that there is a GAP in the current knowledge and REALIZE what the Problem Statement is (before you even say it)?

## **Problem Statements, Goals, Hypotheses**

If at all possible, you should have multiple Problem Statements, Multiple (matching) Goals, multiple (matching) Hypotheses. Just be sure to justify why you thought that each hypothesis would be supported.

Remember that your Goal(s) MUST be what YOU DID and NOT the overall, general goal from all of the scientists in the world that are working on this type of research.

If you state TOO LARGE of a Problem Statement or TOO LARGE of a Goal then you will be setting yourself up for failure because it will SEEM like you did NOT achieve your goal when in reality that was never a possibility.

Remember, Remember, REMEMBER that all research builds on previous research and each new research (like yours) hopefully makes a small contribution to what is already known (or what is not known yet) SO be careful to state a very specific goal/goals that you ACTUALLY did address and potentially achieve.

Be sure ONLY to include Problem Statements for what you specifically addressed and Goals for what you actually did. Otherwise you set yourself up in a negative way because it will look like you did not accomplish the goals that you said you wanted to.

You can use ONE of the following “Problem Statements” or “Gaps” but only one as they are synonyms!!

You can use ONE of the following “Goals” or “Objectives” or “Purpose” but only one as they are synonyms!!

## **Methods**

Every picture or graphic or chart should have a very descriptive, scientific sounding caption. Each caption must explain the graphic/chart and what you want the judge to understand AND appreciate from each (maybe also add boxes around the data parts that are important)

\*\*\* The captions should also be in a FAR SMALLER font (maybe a size 16 or 18)

Constantly list why you did certain steps.

Justify most of the different steps by listing things such as “... in order to...”

OR ... “ so that...”

## **Results, Analysis, Discussion, Application, Application, APPLICATION**

Consider adding a box or arrow on the data charts to help the judge focus on the parts that are important. Otherwise this chart may just seem like a picture that is too confusing for anyone to appreciate what it is “telling”

You do NOT want the judge to think “Oh that student is so smart but I have NO IDEA what they are talking about

For Data charts..

You should ONLY have 3 horizontal lines. One above the headings, one below the headings and one at the bottom of the chart. Charts should not have any vertical lines. They should look like they do in most journal articles.

Preferred cola	Age						
	18 to	25 to	30 to	40 to	50 to	55 to	65 or
	24	29	39	49	54	64	more
	%	%	%	%	%	%	%
Coca-Cola	65	41	55	28	46	36	36
Diet Coke	2	10	13	15	8	12	23
Coke Zero	9	23	19	22	28	16	14
Pepsi Light	0	3	0	3	3	6	9
PepsiMax	16	18	6	10	13	24	14
Pepsi	7	5	7	22	3	6	5
NET	100	100	100	100	100	100	100

You also need to review the way these charts look in related research articles.

- Are all columns left or right or center justified?
- Are the titles bold?
- Is a “key” included for charts or graphs?
- Is the data (numbers) listed with too many places after the decimal (ex. 2.3000000005)?
- Be aware of Significant Figures as well as checking on related research articles to see the typical level that the data is rounded off to.
- Be consistent from chart to chart and within a chart.

This is especially true since these are all supposed to be based on correlations between two diff factors (questions)

If possible, you should have your data statistically analyzed. You also must list it like they do in journal articles... it should be the statement and then at the end ( $P < .05$ ) or ( $P < .01$ ) etc... It should NOT say the actual word "value"

Be able to explain how you statistically analyzed the data? Why did you use those statistical tests and not others? Are those statistical tests based on previous research (or standard analytical measures)?

If you didn't analyze the data statistically then you MUST be ready to address why you don't because it IS on the rubric and you will lose points unless the judge is understanding and accepting of the reasons why not. When you have charts that are listing P-Values, you should round off to 3 or 4 decimal places.

Consider combining your Results & Discussion so that the judge does not have to look back and forth between them to see how the charts of the results section matches up to the text of the discussion section. You could combine them and then just call the section "Results/Analysis/Discussion"

The impact (of the analysis/discussion section), must have a "WOW factor". Therefore, the information in this section needs to be even more clear and more detailed.

This is the section that can impress the judges enough for you to WIN!!! It is ALL about APPLICATIONS and/or Potential IMPLICATIONS.

You cannot say the words "not significant" or "significant" without listing the support p value (or similar)

## **Conclusion**

This should be viewed as a summary of what the problem was, what you did to address the problem and what you found. Therefore, your conclusion should be broken up into three parts

1. Goals
2. Methods
3. Findings

By doing it this way, it allows you to review what the problem was, what you did and what you found in a very clear, concise way. This is also a chance for you to remind the judge of these things and make it clear that you had a nice, neat, organized project, even if it is only phase 1

## **Future Research**

You MUST think that each judge will be standing in front of you and saying "So what?"

You may need to justify the reason for this focus. Think about the judge feeling this way about your research (almost like it is Shark Tank) .... "If I had \$1,000,000 why SHOULD I consider investing in your future research??"