**Streamlining Lab Report Grading: Errors Checklists**

Grading lab reports are one of the banes of our existence as professors. They are endless, unremitting papers that need to be scrutinized for accuracy, precision and understanding. Instead of tearing your hair out at the fifteenth report in which the student failed to use to proper number of significant figures, or failed to produce a readable graph, why not just breezily check a box on your Errors Checklist (in which you have provided a complete and thoughtful explanation), and staple to the student report?

I have created and used Errors Checklists for General Chemistry and Foundations of Inorganic Chemistry lab classes for almost two decades. I have passed them on to junior colleagues in my department, which they have modified to suit their needs. Errors Checklists lower my anxiety and anger when grading multiple lab reports, and provide clearer communication with students.

**Creating Your Own Errors Checklist**

1. Start with the Word doc template provided.
2. If you have taught the lab class before, then you know the common pitfalls for each experiment.
3. Common items with General Chemistry labs:
	1. Significant figures
	2. Correct calculations
	3. Error analysis
	4. Graphing, both format (Title, axis labels, etc.) and content (scale, best fit line, etc.)
4. Customize as you go along.
5. Share with colleagues!

**Student Name ­­­­­­­­­­­­­­­­­­\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**<Name of experiment> Errors Checklist**

In the Introduction, you did not:

|  |  |
| --- | --- |
|  | Write all of the relevant balanced equations of reaction  |

In the Experimental, you did not:

|  |  |
| --- | --- |
|  |  |
|  |  |
|  |  |
|  |  |

In the Results, you did not:

|  |  |
| --- | --- |
|  | Write observations |
|  | Calculate % yield correctly  |
|  | Label axes and/or title the graph |
|  |  |
|  |  |
|  |  |

In the Discussion, you did not:

|  |  |
| --- | --- |
|  | Discuss reasons for % yield |
|  |  |
|  |  |