Experimentation Rubric

| Experimental Design | Advanced The experimental procedure is well designed and allows control of all variables selected and appropriate data to be collected. All steps in the experimental procedure are documented. | Intermediate The experimental procedure could be better designed, but it allows control of all variables selected and some appropriate data can be collected. All steps in the experimental procedure are documented. | The experimental procedure is not well designed, does not allow control of all variables selected, and there are concerns with the data that can be collected. Some steps in the experimental procedure are not documented. | Little/No Ability There is little or no evidence of an attempt at any experimental design. There is little or no meaningful documentation of the experimental procedure. |
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| Data Collection | The experimental procedure was carried out per the description. Appropriate data was collected. Raw data, including units, are recorded in a way that is appropriate and clear. | The experimental procedure was for the most part carried out per the description. Appropriate data was collected with few exceptions. Raw data, including units, are recorded although not as appropriately and clearly as they might be. | The experimental procedure was not carried out per the description. There are significant problems with collecting appropriate data. Raw data, including units, are not recorded in a way that is appropriate and clear. | There is little or no evidence of an attempt to carry out an experimental procedure. There is little or no evidence of appropriate data being collected. |
| Data Analysis | Data are presented in ways (charts, tables, graphs) that best facilitate understanding and interpretation. | Data are presented in ways (charts, tables, graphs) that can be understood and interpreted, but not as clearly as they might be. | Data are presented in ways (charts, tables, graphs) that are unclear. | There is little or no presentation of experimental data. |
| Interpretation | The results are appropriately interpreted and presented in a clear way. | The results are interpreted appropriately, but not as fully as they might be. The results are presented in a useful way, but not as clearly as they might be. | The results are not interpreted appropriately. The results are not presented clearly. | There is little or no attempt at interpreting the data. There is little or not attempt at presenting the data. |