**Project # \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Peer Editor \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Honors Chemistry Research Project Peer Editing Grading Rubric**

**Introduction \_\_\_\_\_\_\_\_\_\_/12 points possible**

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| --- | --- | --- | --- | --- |
|  | **2** | **1** | **0** | **Points Earned** |
| **Problem Described** | Description of the problem provides critical background on the need for and importance of the current research study. | Description of the problem is weak and/or poorly documented. | Problem is not described. |  |
| **Research on Entity Studied** | Sufficient background on entity’s qualities (and care and safety, if applicable) are well described. | Background research on entity is weak and/or incomplete. | Background research on entity is absent. |  |
| **Research on Independent Variable (IV)** | Background research on IV meets both of the criteria listed: Research (1) supports the manipulation of this variable and (2) indicates that manipulation will address the hypothesis or research question. | Background research on IV meets only one of the two criteria. | Meets neither criteria. |  |
| **Research on Dependent Variable (DV)** | Background research on DV meets both of the criteria listed: (1) DV is a good variable to measure or observe in response to IV; and (2) known associations of DV with IV are described. | Background research on DV meets only one of the two criteria. | Meets neither criteria. |  |
| **Research on Quantitative Methods** | Quantitative research meets both of the criteria listed: (1) Options for quantitative data collection and measure are well described; and (2) best methods are justified. | Quantitative research meets only one of the two criteria. | Meets neither criteria. |  |
| **Research on Qualitative Methods** | Qualitative research meets both of the criteria listed: (1) Options for qualitative data collection and measurement are well described; and (2) best methods are justified. | Qualitative research meets only one of the two criteria. | Meets neither criteria. |  |

**Materials and Methods \_\_\_\_\_\_\_\_\_\_\_/14 points possible**

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| --- | --- | --- | --- | --- |
|  | **2** | **1** | **0** | **Points Earned** |
| **Experimental Setup** | Description of how the experiment was prepared for data collection is detailed enough that another individual could replicate it. | Description missing small details that would make it easier for someone to replicate the research. | Description is missing critical details necessary for someone to be able to replicate the research. |  |
| **Quantitative Data Collection** | Description of how quantitative data were collected is detailed enough for someone to replicate the research, and data collected is appropriate for answering the research question. | Description missing small details that would make it easier for someone to replicate the research. | Description is missing critical details necessary for someone to be able to replicate the research, or data collected does not help answer the research question. |  |
| **Qualitative Data Collection** | Description of how qualitative data were collected is detailed enough for someone to replicate the research, and data collected is appropriate for answering the research question. | Description missing small details that would make it easier for someone to replicate the research. | Description is missing critical details necessary for someone to be able to replicate the research, or data collected does not help answer the research question. |  |
| **Photographs** | XX | Photographs of experimental set up and data collection (1) are included, (2) are referred to within the text, and (3) increase the reader’s understanding of how the research was conducted. | Missing one or more of the criteria. |  |
| **Experimental Tasks (hourly,daily,weekly)** | XX | Regular tasks that occurred throughout the experiment are thoroughly described. Tools used to complete the task are also thoroughly described. | Tasks and/or tools only briefly described or are missing. |  |
| **Additional Materials Provided in Appendix (IRB Projects)** | XX | Surveys, assessments, or consent forms are (1) included, (2) labeled, and (3) referenced correctly in the paper. Or N/A | Missing one or more of the criteria if applicable. |  |
| **Research Design Table** | XX | Appropriately describes research design, making clear the difference between control and experimental groups. | Research design not clearly represented. |  |
| **Extraneous Variables** | Properly addresses extraneous variables and explains how they would be kept constant or monitored. | Briefly addresses extraneous variables but does not sufficiently explain how they would be kept constant or monitored. | Does not address extraneous variables. |  |

**Hypothesis \_\_\_\_\_\_\_\_\_\_/2 points possible**

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| --- | --- | --- | --- | --- |
|  | **2** | **1** | **0** | **Points Earned** |
| **Hypothesis** | Meets two or more of the criteria: Hypothesis is (1) written as a testable statement; (2) includes IV and DV; and (3) includes predictions that can be supported or rejected. | Missing one of the criteria. | Missing 2 or 3 of the criteria. |  |

**Data and Results \_\_\_\_\_\_\_\_\_\_/16 points possible**

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|  | **2** | **1** | **0** | **Points Earned** |
| **Preparation of Data** |  |  |  |  |
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**Graphical Representation of Data \_\_\_\_\_\_\_\_\_\_/9 points possible**

**Analysis and Conclusions \_\_\_\_\_\_\_\_\_\_\_/19 points possible**

**Personal Reflection \_\_\_\_\_\_\_\_\_\_/4 points possible**

**Documentation \_\_\_\_\_\_\_\_\_\_/8 points possible**

**Spelling and Mechanics \_\_\_\_\_\_\_\_\_\_/8 points possible**

**Scientific Writing \_\_\_\_\_\_\_\_\_\_/6 points possible**

**Paper Setup \_\_\_\_\_\_\_\_\_\_/2 points possible**

**Points Earned \_\_\_\_\_\_\_\_\_\_**

**Points Possible 100\_\_\_**

**Instructor Comments:**