**Extended Experimental Investigation Rubric**

An EEI Report is all about communicating ideas clearly and concisely. Remember you are not graded on the amount of forest cleared to make the paper used in your report.

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| **Grade Topic** | **HD** | **D** | **C** | **P** | **N** |
| **Layout (Title Page, Table of Contents, Abstract, Appendices, References)**  **3%** | * Excellent professional standard for both layout and use of scientific language. * The sequence of the entire report and the sequence within each sub-heading is logical and suitable for the question being researched. * Each sub-heading is clear and correctly explained in relation to the research question. * A mixture of high quality resources are included. | | * Good standard for both the layout and the use of scientific language. * The sequence of the entire report and the sequence within each sub-heading is evident and mostly relates to the question being researched. * Each sub-heading is clear and mostly explained in relation to the research question. * A mixture of resources are included. | | * Virtually no standard for both the layout and the use of scientific language. * The sequence of the entire report and the sequence within each sub-heading is not clear and vaguely relates to the question being researched. * Each sub-heading is listed, but poorly written. * A resource is included. |
| **Literature Review**  **7%** | * Literature review relates directly to the research question. * Excellent use of scientific language which relates to the research question and laboratory demonstration (though your laboratory demonstration should not be mentioned explicitly). * Many references are used from a range of sources (e.g. texts, books, websites, DVD lab activities, journals etc.). * There is an in-depth understanding of the theoretical underpinnings of the question being researched. | | * The literature review mostly relates to the research question. * Some use of scientific language which mostly relates to the research question and laboratory demonstration (though your laboratory demonstration should not be mentioned explicitly). * Some references are used. * There is some evidence of understanding in relation to the theory of the question being researched. | | * The literature review partially relates to the research question. * Virtually no use of scientific language. * A reference is used. * There is virtually no evidence of understanding in relation to the theory of the question being researched. |
| **Research Question**  **5%** | * Is clear and makes sense in relation to the literature review. * Is a high order question (i.e. the results are not easily obtained and cannot produce a ‘yes/no’ only conclusion). | | * Is well written and relates mostly to the literature review. * Is a question which allows for the opportunity of a reasonable discussion. | | * Is poorly written and has little relation to the literature review. * Is a ‘yes/no’ question which allows for little opportunity of a reasonable discussion. |
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| **Aim, Hypothesis, Method.**  **25%** | * Aim is precise, simple and clearly explained. * Multi-layered understanding of research question is explained in the hypothesis. * Prediction is embedded clearly in the hypothesis. * Method is sequential and makes sense (i.e. another scientist could reinvent your experiment based on the explicit detail and the sequential order). | | * Aim is simple and explained to some level of clarity. * Hypothesis is well written offering some understanding of the research question. * Prediction is embedded in the hypothesis. * Method mostly makes sense and is written with some order to the process. | | * Aim is complex and confusing (i.e it doesn’t relate to the research question). * Hypothesis is written, but with little understanding relating to the research question. * Prediction is not in the hypothesis. |
| **Results, Use of Tables/Graphs, Analysis, Error Analysis.**  **40%** | * The raw data is neatly displayed in the appendices. * The tables and/or graphs are relevant for the type of raw data collected and relates directly to the answering of the research question. * Tables and/or graphs are labelled and titled (and the titles relate to the raw data collected). * Tables and/or graphs are referenced to the raw data collected. | | * The raw data is in the appendices. * The tables and/or graphs are related to the type of raw data collected and mostly relates to the answering of the research question. * Tables and/or graphs are labelled and titled. * Tables and/or graphs are referenced to the raw data collected. | | * The raw data is not in the report. * The tables and/or graphs don’t relate to the type of raw data collected and vaguely relate to the research question. * Tables and/or graphs are intermittently labelled and titled. * Tables and/or graphs are not referenced to the raw data collected. |
| **Conducting of Experiment, Collecting of Results.**  **10%** | * Experiment is conducted in a professional and responsible manner. * Experiment works effectively in collecting the results required. * Results are collected as stated in the method. | | * Experiment is conducted in a reasonable manner. * Experiment works reasonably in collecting the results required. * Results are collected. | | * Experiment is conducted in a poor and unprofessional manner. * Experiment doesn’t work in collecting the results required. * Results are collected out of sync with when they should have been collected. |
| **Discussion and Conclusion**  **10%** | * The discussion relates clearly to the hypothesis and results, as well as includes a clear relating statement to the analysis and error analysis. * The discussion references important information obtained in the results collected. * The conclusion relates explicitly to the aim of the project and the discussion. | | * The discussion relates to the hypothesis and results, with some mention of the analysis and error analysis. * The discussion explains the results collected. * The conclusion relates to the aim of the project and the discussion. | | * There is a discussion, but it relates poorly to the hypothesis and results, with very little mention of the analysis and error analysis. * The discussion poorly explains the results collected. * The conclusion poorly relates to the aim of the project and the discussion. |