Research Paper Grading Rubric

Components	Outstanding	Good	Average	Below Average
Title **2 points**	• Is descriptive of question and work performed • Includes dependent variable, independent variable and organism studied	• Gives a general description of question and work performed • Missing one of the following: dependent variable, independent variable and organism studied	• Is present • Missing two of the following: dependent variable, independent variable and organism studied	• Not present
Abstract **5 points**	• States clearly question being asked • Gives hypothesis being tested • Highlights most important findings with enough information to understand experiments • States major findings and conclusions • Is a concise summary of question and findings	• Is missing one component of good abstract • Abstract is not well organized or concise.	• Is missing two components of a good abstract • Does not give an overview that leads directly to the reader being able to state the major findings of the study	• Is missing three or more components of a good abstract • Is not written in a scientific style • Includes references in abstract
Introduction **12 points**	• Demonstrates that student has outstanding understanding of the research subject matter • Provides the reader with the necessary information to understand the present study • Piques the readers interest and makes the importance of the question real • Gives appropriate information to previous studies that has an impact on the current study • Does not contain superfluous information and/or is not wordy • Gives a description of the specific purpose of the study, a description of the hypothesis being tested and a brief summary of the experimental strategy being used at the end of the introduction • Gives a description of the study system and why it is appropriate to use it to answer hypothesis	• Demonstrates that student has good understanding of the research subject matter • Contains some superfluous information • Does not pique the interest of the reader • Is missing some needed background information • Gives too much information--more like a summary • Has all the components of a good introduction but some parts may be difficult to understand • Gives a description of the study system with some comment on its appropriate use	• Demonstrates that student has average understanding of the research subject matter • Is missing one or two components of a good introduction • Contains significant superfluous information • Gives a description of the study system	• Does not demonstrate that student has an average understanding of the research subject matter • Is missing needed information to understand the present study or is • Is missing a description of the specific purpose of the study, a description of the hypothesis being tested and a brief summary of the experimental strategy being used at the end of the introduction • Contains no information about the study system
Materials and Methods **6 points**	• Describes how the experiment was performed with sufficient detail to enable another scientist to repeat the experiment and obtain the same results • Presents easy-to-follow steps which are logical and adequately detailed without including standard procedures that all scientist know how to do	• Describes how the experiment was performed with sufficient detail to enable another scientist to repeat the experiment and obtain the same results • Most steps are understandable but some lack detail or are confusing	• Describes how the experiment was performed with some critical details are lacking • Most steps are understandable but some lack detail or are confusing	• Is lacking several critical details so that it is impossible to repeat the experiments described • Many steps are missing in describing steps in an experiment

Components	Outstanding	Good	Average	Below Average
Results 8 points	• All pertinent data is described • Raw unprocessed data is absent • Results presented as both narrative text and in figures and tables • Data presented in a logical manner to enable the reader to draw conclusions • Important data is highlighted • No conclusions are present • All tables and figures have appropriate legends • All tables and figures are described in the narrative text	• All pertinent data is described • Raw unprocessed data is absent • Most results presented as both narrative text and in figures and tables • Most data presented in a logical manner to enable the reader to draw conclusions • Most important data is highlighted • All tables and figures have appropriate legends • All tables and figures are described in the narrative text	• Most pertinent data is described • Raw unprocessed data is absent • Most results presented as both narrative text and in figures and tables • Most data presented in a logical manner to enable the reader to draw conclusions • Most important data is highlighted • Most of the tables and figures have appropriate legends • Most tables and figures are described in the narrative text	• Raw unprocessed data is present • Some results presented as both narrative text and in figures and tables • Data not clearly presented • Important data not highlighted • Data in tables or figures not described in narrative form
Discussion/ Conclusions 8 points	• Question and hypothesis restated • Conclusions are stated clearly with explicit reference to the data that support a conclusion • Argument for conclusions well organized • Importance of conclusions discussed • Conclusions related to other studies and put into a context of current knowledge • Clear differentiation between speculations and conclusions • Final paragraph states the major finding of the study (the take home message)	• Conclusions are stated clearly with explicit reference to the data that support a conclusion • Argument for conclusions is generally well organized • Importance of conclusions discussed • Conclusions related to other studies and put into a context of current knowledge • Final paragraph states the major finding of the study (the take home message)	• Conclusions are stated clearly with reference to the data that support a conclusion • Argument for the conclusions can be understood but difficult to follow • Final paragraph states the major finding of the study (the take home message)	• Conclusions are stated but without sufficient reference to the results that support it. • Lacking several of the characters of a good discussion
References 5 points	• All cited sources present • No references not cited in the body present • In appropriate format • References all highly relevant	• All cited sources present • In appropriate format • References relevant and appropriate	• Most cited sources present • Generally in appropriate format • References relevant and appropriate	• Many sources absent • Inappropriate format • References not most relevant/appropriate to study
Grammar and mechanics 4 points	• Paragraphs well organized • Sections with logical organization of paragraphs (especially introduction, results and conclusions) • Few grammatical errors, typos and misspellings • Appropriate word selection • Correct use of scientific terms	• Most paragraphs well organized • Sections with logical organization of paragraphs (especially introduction, results and conclusions) • Several grammatical errors, typos, and misspelling may be present • Some misappropriate word useage errors (effect vs. affect) • Some misuse of scientific terms	• Many paragraphs well organized • Several grammatical errors, typos, and misspelling may be present	• Paper lacks well organized paragraphs • Sections do not contain information presented in a logical order • Many grammatical errors • Many misappropriate word useage errors (e.g., effect vs. affect) • Many misuses of scientific terms
Overall Evaluation	**45-50 points**	**40-44 points**	**35-39 points**	**0-34 points**