Experimental Design Division B Rubric

Not a yes/no question Data Table Statement narrows down topic area (implies a specific experiment) All raw data is given Generalized variables included All data has units Problem is clearly testable All data has units Statement predicts a relationship or trend Appropriate statistics are given Statement gives specific direction to the Appropriate statistics are given Statement gives specific direction to the Appropriate type of graph used Prediction includes both independent and Appropriate type of graph used A rationale is given for the hypothesis Appropriate type of graph used IV correctly identified	1. Statement of problem	7. Quantitative Data
	Not a yes/no question	Data Table
a specific experiment)		All raw data is given
Generalized variables included Condensed table with most Problem is clearly testable Table(s) labeled properly: titles, Statement predicts a relationship or trend Appropriate statistics are given Statement predicts a relationship or trend Appropriate statistics are given Statement gives specific direction to the Appropriate statistics are given Prediction includes both independent and Appropriate type of graph used A rationale is given for the hypothesis Graph labeled properly: 3. Variables IV correctly identified IV operationally defined Trends in data are represented		All data has units
Problem is clearly testable important data included Table(s) labeled properly: titles, units, headings 2. Hypothesis Table(s) labeled properly: titles, units, headings Statement predicts a relationship or trend Appropriate statistics are given Statement gives specific direction to the Appropriate statistics are given Statement gives specific direction to the Appropriate statistics are given Prediction includes both independent and Appropriate type of graph used A rationale is given for the hypothesis Graph has title 3. Variables UV correctly identified UN tits included IV correctly identified Trends in data are represented	Generalized variables included	
2. Hypothesis		
2. Hypothesis units, headings Statement predicts a relationship or trend Appropriate statistics are given Statement gives specific direction to the Appropriate statistics are given Predictions(s): A stand is taken. Graph(s) Prediction includes both independent and Appropriate type of graph used A rationale is given for the hypothesis Graph has title 3. Variables IV correctly identified IV correctly identified Trends in data are represented		
 2. HypothesisStatement predicts a relationship or trendStatement gives specific direction to theStatement gives specific direction to theStatement gives specific direction to theGraph(s) Prediction includes both independent andAppropriate type of graph usedGraph has titleGraph has titleGraph has titleGraph has titleGraph labeled properly:(axes/series) 3. VariablesIV correctly identifiedIV correctly identifiedIV operationally definedIV operationally definedIV correctly identifiedIV operationally definedIV correctly identifiedIV correctly identifiedIV correctly identifiedIV correctly identifiedIV operationally definedIV correctly identifiedIV correctly identified		
	2. Hypothesis	Example calculations are given
 Statement gives specific direction to the predictions(s): A stand is taken. Prediction includes both independent and dependent variables A rationale is given for the hypothesis Variables Independent Variable IV correctly identified IV operationally defined 		Appropriate statistics are given
predictions(s): A stand is taken. Prediction includes both independent and dependent variables A rationale is given for the hypothesis 3. Variables Independent Variable IN correctly identified IV operationally defined Graph(s) Graph(s) Appropriate type of graph used Graph has title Graph labeled properly: (axes/series) Units included Appropriate scale used Trends in data are represented		
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3. Variables (axes/series) Independent Variable Units included IV correctly identified Appropriate scale used IV operationally defined Trends in data are represented		
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Independent Variable Appropriate scale used IV correctly identified Trends in data are represented IV operationally defined Trends in data are represented	3 Variables	
IV correctly identified Trends in data are represented IV operationally defined		
IV operationally defined		Trends in data are represented
IV operationally defined	IV operationally defined	
At least three levels of IV given 8 Analysis and interpretation of data	At least three levels of IV given	8. Analysis and interpretation of data
Dependent Variable All data discussed and interpreted		
(2) DV correctly identified Unusual data points commented on		Unusual data points commented on
DV operationally defined Trends in data explained and interpreted		
Controlled Variables Enough detail is given to understand data	Controlled Variables	
(2) 1 CV correctly identified		
2 CV correctly identified 9. Possible Experimental Errors	2 CV correctly identified	0 Possible Experimental Errors
3 CV correctly identified 9. Possible Experimental Enfors	2 CV correctly identified	
rossible reasons for errors are given Important info about data collection given	5 C v conectry identified	
4. Standards of Comparison Effect errors had on data discussed	1 Standards of Comparison	
A SOC is identified		
The SOC makes logical sense for the 10. Conclusion		10 Conclusion
experiment being done Hypothesis is evaluated according to data		
Reason given for why response is SOC Hypothesis is re-stated		Hypothesis is restated
Reason given for why response is SOC Hypothesis is re-stated Reasons to accept/reject hypothesis given	Reason given for why response is SOC	Hypothesis is re-stated
5. Materials and Procedure All statements are supported by the data	5 Motorials and Drasadura	
All materials used are listed (no extras)		All statements are supported by the data
Materials listed separately from procedure 11. Recommendations for further experimentation		11 Decommondations for further experimentation
Procedure well organized Suggestions for improvement of specific Procedure is in a logical sequence experiment are given		
(2) Enough information is given so another Suggestions for other ways to look at		
could repeat procedure hypothesis given		
Diagrams used Suggestions for future experiments given		
Repeated trials Practical application(s) of experiment given	Repeated trials	Practical application(s) of experiment given
6. Qualitative Observations	6. Qualitative Observations	
Observations about results given	-	
Observations about results given Observations about procedure / deviations		
Observations about proceeding / deviations		
relating to DV(extra info)		
Observations given throughout course of		

experiment