

ALTERNATIVE HSPE SCIENCE EXPERIMENTAL DESIGN RUBIC

<p>TITLE:</p>				
<p>INTRODUCTION - 100 points</p>	<p>Complete and relevant to topic: 15-20 points</p>	<p>Mostly complete and related to topic: 6-14 points</p>	<p>Incomplete or not relevant to topic: 1-6 points</p>	<p>Not relevant or no attempt: No points</p>
<p>What is your research question?</p>				
<p>What background information did you have (would you need) to design the investigation?</p>				
<p>What was your hypothesis?</p>				
<p>How did you formulate your hypothesis?</p>				
<p>Do you believe your hypothesis is accurate? Why or why not?</p>				
<p>Methods - 100 points</p>	<p>Complete and relevant to topic: 15-20 points</p>	<p>Mostly complete and related to topic: 6-14 points</p>	<p>Incomplete or not relevant to topic: 1-6 points</p>	<p>Not relevant or no attempt: No points</p>
<p>What did you do to test your hypothesis: to answer your original question?</p>				
<p>What are the variables of your experiment (dependent and independent)?</p>				
<p>Which variable(s) are you manipulating? What was the reasoning that led to your choice(s)?</p>				
<p>What exactly did you (will you) measure or count? What comparison(s) are you making?</p>				
<p>How did you (will you) make measurements? Describe any appropriate statistical tests you would use to test your hypothesis.</p>				

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Results – 80 points	Complete and relevant to topic: 30-40 points	Mostly complete and related to topic: 16-29 points	Incomplete or not relevant to topic: 1-15 points	Not relevant or no attempt: No points
Provide a narrative of your results.				
<input type="checkbox"/> Represent your collected data using appropriate graphs, tables, charts, etc.				
Discussion – 80 points	Complete and relevant to topic: 8-10 points	Mostly complete and related to topic: 6-8 points	Incomplete or not relevant to topic: 1-5 points	Not relevant or no attempt: No points
Based upon the data you collected during your investigation, what claim(s) were you able to make to address your research question?				
Does your data support your claims? Why or why not?				
Did you accept or reject your initial hypothesis? Why?				
How did your results fit with what you already knew, or have learned from other sources?				
Would you make the same hypothesis again, given the same set of circumstances? Why or why not?				
If you were able to repeat this experiment, what changes would you make to address possible sources of error that may have affected your results?				
Do you believe you would be able to replicate your results, given the same set of circumstances? Why or why not?				
How could your experiment be important in the application of this information to real world problems?				

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References – 40 points	Complete and relevant to topic: 15-20 points	Mostly complete and related to topic: 6-14 points	Incomplete or not relevant to topic: 1-6 points	Not relevant or no attempt: No points
Quality of cited references using approved APA or MLA format				
Amount of cited references using approved APA or MLA format	(4 references or more)	(3 references)	(1-2 references)	(no references)