

**Methodology: Experiment**

	<b>Exemplary 4</b>	<b>Proficient 3</b>	<b>Marginal 2</b>	<b>Unacceptable 1</b>
<b>Quality of Hypothesis</b>	<p><b>Exceptional level of all of the following:</b></p> <ul style="list-style-type: none"> <li>- Clear articulation of research questions</li> <li>- Designing a hypothesis that is precise, meaningful and falsifiable</li> </ul>	<p><b>Proficient/ mastery level of most of the following:</b></p> <ul style="list-style-type: none"> <li>- Clear articulation of research questions</li> <li>- Designing a hypothesis that is precise, meaningful and falsifiable</li> </ul>	<p><b>Marginal/borderline level of most of the following:</b></p> <ul style="list-style-type: none"> <li>- Clear articulation of research questions</li> <li>- Designing a hypothesis that is precise, meaningful and falsifiable</li> </ul>	<p><b>Unacceptable level of most of the following:</b></p> <ul style="list-style-type: none"> <li>- Clear articulation of research questions</li> <li>- Designing a hypothesis that is precise, meaningful and falsifiable</li> </ul>
<b>Experimental Design &amp; Procedure</b>	<p><b>Exceptional level of all of the following:</b></p> <ul style="list-style-type: none"> <li>- Experimental design that evaluates the selected phenomena and considers the appropriate choice of between and within subject design</li> <li>- Relevant independent and dependant variables with the appropriate levels and use of manipulation checks</li> <li>- Minimizing confounding variables</li> <li>- Considering internal and external validity</li> <li>- Experimental design by acquiring/designing the appropriate apparatus/materials</li> <li>- Enabling researchers to replicate the experiment</li> <li>- Extensibility and building on the existing body of literature</li> </ul>	<p><b>Proficient/ mastery level of most of the following:</b></p> <ul style="list-style-type: none"> <li>- Experimental design that evaluates the selected phenomena and considers the appropriate choice of between and within subject design</li> <li>- Relevant independent and dependant variables with the appropriate levels and use of manipulation checks</li> <li>- Minimizing confounding variables</li> <li>- Considering internal and external validity</li> <li>- Experimental design by acquiring/designing the appropriate apparatus/materials</li> <li>- Enabling researchers to replicate the experiment</li> <li>- Extensibility and building on existing body of literature</li> </ul>	<p><b>Marginal/borderline level of most of the following:</b></p> <ul style="list-style-type: none"> <li>- Experimental design that evaluates the selected phenomena and considers the appropriate choice of between and within subject design</li> <li>- Relevant independent and dependant variables with the appropriate levels and use of manipulation checks</li> <li>- Minimizing confounding variables</li> <li>- Considering internal and external validity</li> <li>- Experimental design by acquiring/designing the appropriate apparatus/materials</li> <li>- Enabling researchers to replicate the experiment</li> <li>- Extensibility and building on existing body of literature</li> </ul>	<p><b>Unacceptable level of most of the following:</b></p> <ul style="list-style-type: none"> <li>- Experimental design that evaluates the selected phenomena and considers the appropriate choice of between and within subject design</li> <li>- Relevant independent and dependant variables with the appropriate levels and use of manipulation checks</li> <li>- Minimizing confounding variables</li> <li>- Considering internal and external validity</li> <li>- Experimental design by acquiring/designing the appropriate apparatus/materials</li> <li>- Enabling researchers to replicate the experiment</li> <li>- Extensibility and building on existing body of literature</li> </ul>

<p><b>Participant Selection and Ethical Considerations</b></p>	<p><b>Exceptional level of all of the following:</b></p> <ul style="list-style-type: none"> <li>- Ethical participant considerations (i.e., considerations of vulnerable participants, informed consent, privacy, confidentiality, maintaining trust, ability to opt out at all times, value of participant’s time)</li> <li>- Consideration of the appropriate user population (i.e., based on the availability of resources, the power of statistical tests to be used, and representativeness of population)</li> </ul>	<p><b>Proficient/mastery level of most of the following:</b></p> <ul style="list-style-type: none"> <li>- Ethical participant considerations (i.e., considerations of vulnerable participants, informed consent, privacy, confidentiality, maintaining trust, ability to opt out at all times, value of participant’s time)</li> <li>- Consideration of the appropriate user population (i.e., based on the availability of resources, the power of statistical tests to be used, and representativeness of population)</li> </ul>	<p><b>Marginal/borderline level of most of the following:</b></p> <ul style="list-style-type: none"> <li>- Ethical participant considerations (i.e., considerations of vulnerable participants, informed consent, privacy, confidentiality, maintaining trust, ability to opt out at all times, value of participant’s time)</li> <li>- Consideration of the appropriate user population (i.e., based on the availability of resources, the power of statistical tests to be used, and representativeness of population)</li> </ul>	<p><b>Unacceptable level of most of the following:</b></p> <ul style="list-style-type: none"> <li>- Ethical participant considerations (i.e., considerations of vulnerable participants, informed consent, privacy, confidentiality, maintaining trust, ability to opt out at all times, value of participant’s time)</li> <li>- Consideration of the appropriate user population (i.e., based on the availability of resources, the power of statistical tests to be used, and representativeness of population)</li> </ul>
<p><b>Analysis</b></p>	<p><b>Exceptional level of all of the following:</b></p> <ul style="list-style-type: none"> <li>- Focus on the appropriate quantitative data</li> <li>- Choice of statistical tests</li> <li>- Addressment of the research questions</li> <li>- Minimization of statistical and confirmation bias</li> </ul>	<p><b>Proficient/mastery level of most of the following:</b></p> <ul style="list-style-type: none"> <li>- Focus on the appropriate quantitative data</li> <li>- Choice of statistical tests</li> <li>- Addressment of the research questions</li> <li>- Minimization of statistical and confirmation bias</li> </ul>	<p><b>Marginal/borderline level of most of the following:</b></p> <ul style="list-style-type: none"> <li>- Focus on the appropriate quantitative data</li> <li>- Choice of statistical tests</li> <li>- Addressment of the research questions</li> <li>- Minimization of statistical and confirmation bias</li> </ul>	<p><b>Unacceptable level of most of the following:</b></p> <ul style="list-style-type: none"> <li>- Focus on the appropriate quantitative data</li> <li>- Choice of statistical tests</li> <li>- Addressment of the research questions</li> <li>- Minimization of statistical and confirmation bias</li> </ul>

<p><b>Scope of Claim and Supporting Evidence</b></p>	<p><b>Exceptional level of all of the following:</b></p> <ul style="list-style-type: none"> <li>- Clearly articulating scope</li> <li>- Supporting evidence that matches the scope of the hypothesis</li> <li>- Claims that are clearly articulated and supported with statistically significant results or acceptance of the null hypothesis</li> </ul>	<p><b>Proficient/mastery level of most of the following:</b></p> <ul style="list-style-type: none"> <li>- Clearly articulating scope</li> <li>- Supporting evidence that matches the scope of the hypothesis</li> <li>- Claims that are clearly articulated and supported with statistically significant results or acceptance of the null hypothesis</li> </ul>	<p><b>Marginal/borderline level of most of the following:</b></p> <ul style="list-style-type: none"> <li>- Clearly articulating scope</li> <li>- Supporting evidence that matches the scope of the hypothesis</li> <li>- Claims that are clearly articulated and supported with statistically significant results or acceptance of the null hypothesis</li> </ul>	<p><b>Unacceptable level of most of the following:</b></p> <ul style="list-style-type: none"> <li>- Clearly articulating scope</li> <li>- Supporting evidence that matches the scope of the hypothesis</li> <li>- Claims that are clearly articulated and supported with statistically significant results or acceptance of the null hypothesis</li> </ul>
<p><b>Quality of Writing</b></p>	<p><b>Exceptional level of all of the following:</b></p> <ul style="list-style-type: none"> <li>- Articulation of research goals, background, method, sampling procedures, experimental design description and procedure, results, discussion, limitations, and future work</li> <li>- Justification of key decisions</li> <li>- Writing that ties back to the hypotheses</li> </ul>	<p><b>Proficient/mastery level of most of the following:</b></p> <ul style="list-style-type: none"> <li>- Articulation of research goals, background, method, sampling procedures, experimental design description and procedure, results, discussion, limitations, and future work</li> <li>- Justification of key decisions</li> <li>- Writing that ties back to the hypotheses</li> </ul>	<p><b>Marginal/ borderline level of most of the following:</b></p> <ul style="list-style-type: none"> <li>- Articulation of research goals, background, method, sampling procedures, experimental design description and procedure, results, discussion, limitations, and future work</li> <li>- Justification of key decisions</li> <li>- Writing that ties back to the hypotheses</li> </ul>	<p><b>Unacceptable level of most of the following:</b></p> <ul style="list-style-type: none"> <li>- Articulation of research goals, background, method, sampling procedures, experimental design description and procedure, results, discussion, limitations, and future work</li> <li>- Justification of key decisions</li> <li>- Writing that ties back to the hypotheses</li> </ul>
<p><b>Magnitude of Contribution</b></p>	<p><b>Exceptional level of all of the following:</b></p> <ul style="list-style-type: none"> <li>- Statistically significant results with large effect size</li> <li>- Novel contributions compared to a strong established baseline</li> </ul>	<p><b>Proficient/mastery level of most of the following:</b></p> <ul style="list-style-type: none"> <li>- Statistically significant results with large effect size</li> <li>- Novel contributions compared to a strong established baseline</li> </ul>	<p><b>Marginal/ borderline level of most of the following:</b></p> <ul style="list-style-type: none"> <li>- Statistically significant results with large effect size</li> <li>- Novel contributions compared to a strong established baseline</li> </ul>	<p><b>Unacceptable level of most of the following:</b></p> <ul style="list-style-type: none"> <li>- Statistically significant results with large effect size</li> <li>- Novel contributions compared to a strong established baseline</li> </ul>