



Learn Everywhere Rubric: Research Courses

Assessment	3	2	1	Student Score
Experimental Proposal	<p>Proposal is well written with proper spelling and grammar.</p> <p>Proposal contains the following sections:</p> <ul style="list-style-type: none"> • Rationale • Hypothesis/Engineering Objective • Materials and Methods • Risks and Safety • Data Analysis Plan • Research Plan and Timeline • Bibliography <p>It is clear that extensive background research has been done and expert level familiarity has been gained with existing scientific knowledge and the concepts underlying the investigation.</p>	<p>There are some grammatical and spelling errors.</p> <p>The proposal contains all sections required for a 3, but some information is missing, miscategorized, or not fully explained.</p> <p>Some background research has been done but is not at the expert level demonstrated by a 3.</p>	<p>There are spelling and grammar errors throughout the proposal to the extent that the readability of the proposal is impacted.</p> <p>One or more of the required sections are missing.</p> <p>It is clear that minimal to no background research has been done, and there is only limited understanding of the scientific concepts underlying the investigation</p>	

Experimental Technique	<p>A mastery of the experimental techniques required for the research investigation is shown when conducting work in the lab.</p> <p>The instructor can be confident that research is being done accurately and safely without constant correction.</p>	<p>Adequate proficiency in the experimental techniques required for the research investigation is exhibited in the laboratory.</p> <p>There are occasional lapses in accuracy or correct risk mitigation.</p>	<p>Poor laboratory technique is demonstrated.</p> <p>Regularly violates lab safety procedures.</p> <p>Technique is so poor that experimental results cannot be trusted.</p>	
Summary Paper	<p>Paper is well written with correct spelling and grammar, and includes the following sections:</p> <ul style="list-style-type: none"> • Abstract • Introduction • Materials • Methods • Results • Discussion • Conclusion • Bibliography <p>The data is organized well into figures and tables with legends and captions. Appropriate statistical analysis has been conducted and is correctly displayed.</p> <p>The paper effectively communicates the research conducted and demonstrates an understanding of the project and how it fits into the body of scientific knowledge.</p>	<p>There are some spelling and grammar errors, but they do not hinder communication.</p> <p>The paper contains all of the required sections, but some information may be missing or miscategorized.</p> <p>The data is presented in figures and tables, but some legends or captions are missing. There are some errors in the statistical analysis or it is incorrectly displayed.</p> <p>The paper adequately communicates the research conducted. There are some gaps in the understanding of the project and how it fits into the body of scientific knowledge.</p>	<p>Spelling and grammar errors make the paper difficult to understand.</p> <p>Sections are missing from the paper.</p> <p>The data is not reported graphically, or not reported at all. There are no legends or captions. No attempt at statistical analysis has been made.</p> <p>The paper does not communicate the research conducted. The experimenter clearly did not understand the project. There is no context given for how the project fits into the body of scientific knowledge.</p>	

<p>Final Research Presentation</p>	<p>The student chose among the following options for a final research presentation:</p> <ul style="list-style-type: none"> • Professional conference style poster • Oral presentation to an expert audience • Summary video <p>All information was conveyed clearly and logically.</p> <p>There were no factual errors in the presentation.</p> <p>The research was presented within a narrative that had a clear beginning, middle, and end.</p> <p>The key findings from the summary paper were communicated, and the general structure of the summary paper was followed.</p> <p>The student showed comfort with and confidence in the research presented.</p>	<p>The student chose from among the options given for a final research presentation.</p> <p>There were some deficiencies in the clear and logical organization of the presentation.</p> <p>The presentation included a few factual errors.</p> <p>The narrative of the research was at times difficult to follow.</p> <p>Some key findings from the summary paper were omitted. The presentation did not always follow the general structure of the summary paper.</p> <p>Some discomfort with or lack of confidence in the research was evident.</p>	<p>An appropriate medium for the presentation was not chosen.</p> <p>The information presented did not at all follow a clear or logical path.</p> <p>The presentation included many factual errors.</p> <p>There was no narrative to the research presented.</p> <p>The presentation did not follow the general format of the summary paper. Many key findings were not presented.</p> <p>The student demonstrated no clear understanding of or comfort with the research.</p>	
---	--	---	--	--