



CCSE General Education Assessment Initiative

SCIENTIFIC REASONING RUBRIC - DRAFT

Criteria	4	3	2	1	0
RESEARCH QUESTION(S)	Identifies a creative, focused, and manageable research question(s) that addresses potentially significant yet previously less-explored aspects of the topic.	Identifies a focused and manageable/doable research question(s) that appropriately addresses relevant aspects of the topic.	Identifies research question(s) that while manageable/doable, is too narrowly focused and leaves out relevant aspects of the topic.	Identifies a research question(s) that is far too general and wide-ranging as to be manageable and doable.	No Evidence
LITERATURE REVIEW (Existing Knowledge, Research, and/or Views)	Synthesizes in-depth information from relevant sources representing various points of view/approaches.	Presents in-depth information from relevant sources representing various points of view/approaches.	Presents information from relevant sources representing limited points of view/approaches.	Presents information from irrelevant sources representing limited points of view/approaches.	No Evidence
METHODOLOGY (Design Process)	All elements of the methodology or theoretical framework are skillfully developed. Appropriate methodology may be synthesized from across disciplines or from relevant subdisciplines.	Critical elements of the methodology are appropriately developed; however, more subtle elements are ignored or unaccounted for.	Critical elements of the methodology are missing, incorrectly developed, or unfocused.	Methodology is entirely inappropriate to answer the research question.	No Evidence
DATA/FINDINGS AND ANALYSIS (Data Analysis)	Organizes and synthesizes data to reveal insightful patterns, differences, or similarities related to focus.	Organizes data to reveal important patterns, differences, or similarities related to focus.	Organizes data, but the organization is not effective in revealing important patterns, differences, or similarities.	Lists data, but it is not organized and/or is unrelated to focus.	No Evidence
CONCLUSIONS	States a conclusion that is a logical extrapolation from the data.	States a conclusion focused solely on the data. The conclusion arises specifically from and responds specifically to the data.	States a general conclusion that, because it is so general, also applies beyond the scope of the data.	States an ambiguous, illogical, or unsupported conclusion from data.	No Evidence

LIMITATIONS AND IMPLICATIONS	Insightfully discusses in detail relevant and supported limitations and implications.	Discusses relevant and supported limitations and implications.	Presents relevant and supported limitations and implications.	Presents limitations and implications, but they are possibly irrelevant and unsupported.	No Evidence
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