



INQUIRY AND PROBLEM SOLVING

Adapted from the AAC&U VALUE Rubrics

2018-2019

Definition

Inquiry is a systematic process of exploring issues or questions through the collection and analysis of evidence that results in informed conclusions or judgments. Problem solving refers to the ability to design, evaluate, and implement a strategy or strategies to answer an open-ended question, overcome an obstacle, or achieve a desired goal. Analysis is the process of breaking complex topics or issues into parts to gain better understanding, often through processes of revision, rethinking, and reorganization, to advance a claim hypothesis, or solution. Inquiry, analysis and problem-solving combine to form a habit of mind critical to academic and career advancement, thoughtful citizenship, and sustained, life-long learning.

Framing Language

This rubric is designed for use in a wide variety of disciplines. Since some aspects of the terminology and process of inquiry can be discipline-specific, an effort has been made to use broad language which reflects multiple approaches and assignments while addressing the fundamental elements of sound inquiry, analysis, and problem solving (including topic selection, existing knowledge, etc.). The Inquiry and Problem Solving process utilized should be appropriate for the discipline addressed. Activities that encompass problem-solving by students may involve problems that range from concrete and every day to the abstract and ambiguous. Problem solving takes place in diverse settings, from scientific and engineering laboratories to art studios, libraries, historical archives, digital simulations, as well as workplaces, communities and other real-world settings. This rubric distills the common elements of most problem-solving contexts and is designed to function across all disciplines.

Glossary

The following definitions seek to clarify terms and concepts as used in this rubric:

- **Knowledge:** Facts, information, and skills acquired through experience or education.
- **Evidence:** Available body of facts or information used to substantiate the truth or validity of a belief or proposition.
- **Limitations:** Critique of the process or evidence.
- **Implications:** How inquiry results apply to a larger context.
- **Hypothesis:** An appropriate response or argument to a challenge or a problem.
- **Conclusions:** A synthesis of key findings drawn from research/evidence or discipline-specific reflection.

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Dimensions	Proficient - 4	Competent - 3	Developing - 2	Novice - 1
<p>Framing the Issues</p> <p><i>Identifies and/or addresses questions problems and/or hypothesis informed by knowledge of context.</i></p>	<p>Clearly frames and addresses a research question, hypothesis and/or problem.</p> <p>Demonstrates strong knowledge of relevant context.</p>	<p>Sufficiently frames and/or addresses a research question, hypothesis and/or problem.</p> <p>Demonstrates substantial knowledge of relevant context.</p>	<p>Begins to frame and/or address a research question, hypothesis and/or problem.</p> <p>Demonstrates some knowledge of relevant context.</p>	<p>Demonstrates limited or no ability to frame or address a research question, hypothesis and/or problem.</p> <p>Demonstrates little knowledge of relevant context.</p>
<p>Evidence Gathering</p> <p><i>Assembles, reviews and synthesizes evidence from diverse sources of relevant knowledge.</i></p>	<p>Assembles, reviews and synthesizes pertinent information from many relevant and appropriate sources with diverse points of view.</p>	<p>Assembles, reviews and selects pertinent information from relevant and appropriate sources with diverse points of view.</p>	<p>Reviews information from some relevant sources with similar points of view.</p>	<p>Reviews limited information from few relevant sources with limited points of view.</p>
<p>Analysis</p> <p><i>Uses evidence to address questions, test hypotheses and evaluate claims and solutions.</i></p>	<p>Clearly analyzes, evaluates and organizes evidence to support hypotheses, claims and solutions.</p>	<p>Consistently analyzes, evaluates and organizes evidence to support hypotheses, claims and solutions.</p>	<p>Partially analyzes, evaluates and organizes evidence to support hypotheses, claims and solutions.</p>	<p>Attempts to analyze, evaluate and organize evidence to support hypotheses, claims and solutions.</p>
<p>Conclusions</p> <p><i>Draws conclusions supported by evidence; identifies implications and limitations.</i></p>	<p>Draws logical conclusions, offers insightful solutions strongly supported by evidence.</p> <p>Discusses limitations and implications.</p>	<p>Draws logical conclusions, offers solutions supported by evidence.</p> <p>Discusses limitations and implications.</p>	<p>Draws somewhat logical conclusions, offers some solutions supported by some evidence.</p> <p>Identifies some limitations and implications.</p>	<p>Attempts to draw conclusions, offers few solutions supported by evidence.</p> <p>Identifies few or no limitations and implications.</p>