CRITICAL THINKING & PROBLEM SOLVING RUBRIC

Definitions

Critical thinking is a habit of mind characterized by the comprehensive exploration of issues, ideas, artifacts, and events before accepting or formulating an opinion or conclusion.

Problem solving is the process of designing, evaluating, and implementing a strategy to answer an open-ended question or achieve a desired goal.

	Excelling 4	Proficient 3	Developing 2	Beginning 1
Definition/Explanation of Problem/Issues Critical Thinking Problem Solving	Defines the scope of the research topic completely. Determines and clearly describes key concepts, delivering all relevant information for full understanding.	Defines the scope of the research topic completely. Determines and describes most key concepts so that understanding is not impeded by omissions.	Defines the scope of the research topic, but incompletely (parts are missing, remains too broad or too narrow, etc.). Determines some key concepts.	Begins to define the scope of the research topic. Has difficulty determining key concepts.
Identify Strategies Problem Solving	Identifies multiple novel approaches for solving the problem that apply within a specific context.	Identifies one or more novel approaches for solving the problem, some of which apply within a specific context.	Identifies one or more "off-the-shelf" approaches for solving the problem, one of which applies within a specific context.	Identifies only "off-the-shelf" approaches for solving the problem or approaches that do not apply within a specific context.
Evaluate Potential Solutions Problem Solving	Not only develops a logical, consistent plan to solve problem, but also recognizes consequences of solution and can articulate reason for choosing solution.	Having selected from among alternatives, develops a logical, consistent plan to solve the problem.	Considers and rejects less acceptable approaches to solving problem.	Considers and uses only a single approach to solve the problem.
Student's position (perspective, thesis/hypothesis) Critical Thinking Problem Solving	Specific position (perspective, thesis/hypothesis) is imaginative, taking into account the complexities of an issue. Acknowledges limits of position (perspective, thesis/hypothesis). Synthesizes others' points of view within position (perspective, thesis/hypothesis).	Specific position (perspective, thesis/hypothesis) takes into account the complexities of an issue. Acknowledges others' points of view within position (perspective, thesis/hypothesis).	Specific position (perspective, thesis/hypothesis) acknowledges different sides of an issue.	Specific position (perspective, thesis/hypothesis) is stated, but is simplistic and obvious.
Evidence *Selecting and using information to investigate a point of view or conclusion* Critical Thinking	Takes information from only germane and reliable source(s) with enough interpretation/evaluation to develop a thorough and coherent analysis or synthesis.	Takes information from mostly germane and reliable source(s) with enough interpretation/evaluation to develop a coherent analysis or synthesis.	Takes information from some germane and reliable source(s) with some interpretation/evaluation, but not enough to develop a coherent analysis or synthesis.	Takes information from some germane and reliable source(s) without any interpretation/evaluation.

	Excelling	Proficient	Developing	Beginning
	4	3	2	1
Influence of context and assumptions Critical Thinking	Thoroughly (systematically and methodically) analyzes assumptions and expert viewpoints and carefully evaluates the relevance of contexts when presenting a position.	Identifies and analyzes assumptions and expert viewpoints and carefully evaluates the relevance of contexts when presenting a position.	Identifies some assumptions and expert viewpoints. Identifies relevant contexts when presenting a position.	Shows an emerging awareness of present assumptions and expert viewpoints. Begins to identify some contexts when presenting a position.
Implement Solution Problem Solving	Implements the strategy to solve the problem in an applied and/or academic setting in a manner that thoroughly and deeply addresses multiple contextual factors of the problem.	Implements the strategy to solve the problem in an applied and/or academic setting in a manner that addresses multiple contextual factors of the problem.	Implements the strategy to solve the problem in an applied and/or academic setting in a manner that addresses the problem statement but ignores relevant contextual factors.	Implements the strategy to solve the problem in an applied and/or academic setting in a manner that does not directly address the problem statement.
Conclusions and related outcomes (implications and consequences) Critical Thinking Problem Solving	Conclusions and related outcomes (consequences and implications) are logical and reflect student's informed evaluation and ability to synthesize evidence. Identifies specific directions for further work.	Conclusion is logically tied to a range of information, including opposing viewpoints; related outcomes (consequences and implications) are identified clearly. Identifies one or more areas for further work.	Conclusion is logically tied to information (because information is chosen to fit the desired conclusion); some related outcomes (consequences and implications) are identified clearly.	Conclusion is inconsistently tied to some of the information discussed; related outcomes (consequences and implications) are oversimplified.

*This rubric was created using the Association of American Colleges and Universities (AAC&U) Critical Thinking and Problem Solving VALUE Rubrics. Retrieved from https://www.aacu.org/value-rubrics

Glossary

The definitions that follow were developed to clarify terms and concepts used in this rubric only.

Analysis: A detailed examination of anything complex in order to understand its nature or to determine its essential features.

Assumptions: Ideas, conditions, or beliefs (often implicit or unstated) that are "taken for granted or accepted as true without proof." (quoted from www.dictionary.reference.com/browse/assumptions)

Awareness: Knowledge and understanding that something is happening or exists.

Conclusion: A reasoned judgment.

Context: The historical, ethical. political, cultural, environmental, or circumstantial settings or conditions that influence and complicate the consideration of any issues, ideas, artifacts, and events.

Contextual Factors: Constraints (such as limits on cost), resources, attitudes (such as biases) and desired additional knowledge which affect how the problem can be best solved in the real world or simulated setting.

Evaluation: To determine or fix the value of or to determine the significance, worth, or condition of usually by careful appraisal and study.

Hypothesis: A tentative assumption made in order to draw out and test its logical or empirical consequences.

Interpret: To explain or tell the meaning of; present in understandable terms.

"Off the shelf" solution: A simplistic option that is familiar from everyday experience but not tailored to the problem at hand (e.g. holding a bake sale to "save" an underfunded public library).

Omissions: Something neglected or left undone.

Outcome: Something that follows as a result or consequence.

Perspective: A mental view or prospect.

Position: A point of view adopted and held to.

Relevant: Having significant and demonstrable bearing on the matter at hand.

Solution: An appropriate response to a challenge or a problem.

Stated: Set down explicitly.

Strategy: A plan of action or an approach designed to arrive at a solution. [e.g., If the problem is a river that needs to be crossed, there could be a construction-oriented, cooperative (build a bridge with your community) approach and a personally oriented, physical (swim across alone) approach. An approach that partially applies would be a personal, physical approach for someone who doesn't know how to swim.]

Support: Specific rationale, evidence, etc. for solution or selection of solution.