



Association  
of American  
Colleges and  
Universities

**VALUE PROBLEM SOLVING METARUBRIC FALL 2008 DRAFT**

*This rubric is the first step in a rubric development process that will produce additional drafts, each responsive to the feedback received. Feedback deadline is February 15, 2009. The next draft of this rubric will be available in May 2009. For more information or to give feedback, please email Wende Morgaine at wendemmm@gmail.com. Thank you!*

Problem-solving covers a wide range of activities that may vary significantly across disciplines. Activities that encompass problem-solving by college students may involve problems that range from well-defined to ambiguous in a simulated or laboratory context, or in real-world settings. This rubric distills the common elements of most problem-solving contexts and is designed to function across all disciplines. It is broad-based enough to allow for individual differences among learners, yet is concise and descriptive in its scope to determine how well students have maximized their respective abilities to practice thinking through problems in order to reach solutions.

This rubric is designed to measure the quality of a process, rather than the quality of an end-product. As a result, portfolio artifacts will need to include some evidence of the individual's thinking about a problem-solving task (e.g., reflections on the process from problem to proposed solution; steps in a problem-based learning assignment; record of think-aloud protocol while solving a problem). The final product of an assignment that required problem resolution is insufficient without insight into the student's problem-solving process. Because we are scoring projects for institutional assessment results, scoring team projects, such as those developed in capstone courses, is appropriate.

Evaluators are encouraged to assign a zero to any performance that doesn't meet level one performance.

	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
Define problem	Shows clear, complete understanding of problem and identifies specific factors that influence the approach to a problem before solving	Shows clear understanding of problem and identifies many specific factors that influence the approach to a problem before solving	Shows partially developed understanding of problem and identifies a few specific factors that influence the approach to a problem before solving	Shows limited understanding of the problem and broader context
Identify strategies	Designs one or more strategies in the context of the problem, along with articulating the decision making framework	Designs one or more strategies in the context of the problem	Identifies a viable strategy	Selects a strategy without regard for its fit
Generate solutions	Always recognizes the need for multiple solutions, alternatives or hypotheses to an identified/defined problem. <b>Fully</b> develops potential, often creative, feasible solutions, alternatives or hypotheses.	Frequently recognizes the need for multiple solutions, alternatives or hypotheses; some include creative elements. <b>Adequately</b> develops potential feasible solutions, alternatives or hypotheses	Sometimes recognizes the need for multiple solutions, alternatives or hypotheses; proposes only a few, not very creative, solutions, alternatives or hypotheses <b>Partially</b> develops potential solutions, alternatives or hypotheses	Rarely recognizes the need for multiple solutions, alternatives or hypotheses; usually states only one solution, alternative or hypothesis; <b>minimally</b> develops potential solution, alternative or hypothesis.
Select solutions	Always applies appropriate background/disciplinary knowledge when considering possible solutions, including reasoning behind evaluation of each option. Always takes into account the opportunities and/or difficulties of applying the solution to the specific context. Identifies at least one correct/workable solution..	Usually applies appropriate background/disciplinary knowledge when considering possible solutions, including reasoning behind evaluation of most options. Usually takes into account the opportunities and/or difficulties of applying the solution to the specific context. Identifies one correct/workable solution.	Sometimes applies appropriate background/disciplinary knowledge when considering possible solutions, including some discussion of reasoning. Sometimes takes into account the opportunities and/or difficulties of applying the solution to the specific context. Identifies partially correct solution.	Rarely applies appropriate background/disciplinary knowledge when considering possible solutions, including little discussion of reasoning. Rarely takes into account the opportunities and/or difficulties of applying the solution to the specific context. Identifies unworkable solution
Evaluate outcomes	Always analyzes and synthesizes results from a wide range of perspectives.	Frequently analyzes and synthesizes results from most perspectives.	Sometimes analyzes and synthesizes results from some perspectives.	Seldom analyzes and synthesizes results, considers only one perspective.