Using the Attached Worksheet:
"Describing Your Approach to an Open-Ended Problem"

Recommended Use:
- This worksheet is designed for situations in which students have not received any particular training in a problem solving process. The worksheet guides students to describe the process they used.
- Have students fill out this worksheet after they have completed a written assignment on an open-ended problem.
- If used in conjunction with a class discussion, have students fill out the worksheet step-by-step during the discussion (e.g., discuss the possible solutions to the problem and then have the students fill out item A on the worksheet).
- Faculty should review the worksheet to gain an understanding of how students address problems. In most cases, weaknesses in the early items (i.e., items A and B) will lead to weaknesses in the later items on the worksheet.
- Once student weaknesses are identified, educational activities can be designed to help students develop better problem solving skills. The items on the worksheet (A through F) are organized from least complex skills to most complex skills. To increase the likelihood that students will develop desired skills, educational activities should focus first on the least complex skills in which student weaknesses are identified.

Alternative Uses:
- If used in conjunction with an oral presentation rather than a written assignment, item E could be modified as follows:

  > How did you take into account the audience and setting in making your oral presentation?

- If used in conjunction with a problem in which no written or oral presentation is made, item E could be modified to one of the following:

  > Did you communicate the problem or your solution to anyone? If so, briefly explain:

  > If you were to write a memo/provide a presentation to (some audience) about this problem, how would you take into account the audience and setting?

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One of the skills of a professional is self-regulation, which is sometimes referred to as "life-long learning." One of the best ways to begin self-regulation is to reflect on way that you have addressed a problem. This worksheet form is designed to help you do this. Once you understand how you typically address problems, you can begin to consider ways to improve your approaches to future problems.

A.   Recognition of Alternative Solutions and Uncertainties

Briefly describe the possible solutions that you considered:

What uncertainties are there about this problem? Why might there be disagreement about the best solution?

B.   Use of Relevant Information in Addressing the Problem

List relevant information that you used in addressing the problem:

C.   Interpretations of Information

Did you think about how different people could see information related to this problem in different ways? Give an example:

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D.   Use of Guidelines or Principles to Judge Across the Various Options
Can you explain how you decided what factors were most important in solving this problem? Give an example.   In coming to your solution, did you carefully consider more than one opinion or solution? Explain.
E.   Written Communication
How did you take into account the audience and setting in writing the paper for this assignment?

F.   Learning from Past Experience
What did you learn from your experience with this problem?
If you encounter a similar problem in the future, would you address it the same way? Why or why not?