

## Lesson Plan for Discussing Problem Analysis with Cause & Effect Analysis

*A possible lesson that can be used with students in the early stages of project conceptualization. This is especially useful when dealing with externally sponsored projects. Slides to accompany this lesson can be obtained from Creighton Peet, IGSD*

**Point of discussion:** To understand what a problem statement is and why it is important and useful to identify one, rather than going straight to identifying a project goal/mission. Project sponsors usually focus on the desired outcome(s) in their project descriptions and thus often never make clear what their problem is and why they need the project done. Without knowing this, the students will not be able to really focus their project on the core issues and may end up going in the wrong direction.

### **Class procedures:**

1. Ask students what a problem is. Brainstorm ideas on the board without making any evaluation of them.
2. Show slide on what a problem is. Ask students which problem statement is correct and why?
3. Indicate that a project may have several or many problems but that there should be one core or higher level problem which incorporates the others. [parallel to goals and objectives]
4. Indicate that to help understand the problem better it is useful to prepare a problem tree which postulates the causes and effects of the core problem. This same exercise can be done with lower level problems, but we will only demonstrate the process for the core problem.
5. Show the slide with the Problem Analysis diagram showing causes and effects. Go over the parts of the diagram starting with the core problem and then showing the possible causes and possible effects.
6. Ask why we do this exercise. After getting some responses (or not) you can show a slide with the purposes of the exercise:
  1. To clarify what each person thinks are the main cause-effect relationships characterizing the problem.
  2. To provide an idea of the complexity of the problem.
  3. To generate an Objectives Analysis where problems are reformulated into positive statements indicating possible future solutions in a means-end relationship.
7. Show the slide of the Objectives Analysis and go over relationships, referring back to the Problem Analysis diagram to show the connections at all three levels.
8. Next step is to ask each team to take what they have produced individually out of class and create a list of team problems and a core problem. They should then hypothesize the possible causes and effects of the core problem. The result should be put on a piece of flipchart paper.

9. After completing the Problem Analysis diagram, they should then create the Objectives Analysis diagram, which will identify possible means to a solution of the problem and a set of ends that would result. This exercise will be a prelude to identifying their Project Goal and Objectives.