Four Tips for "Beefing Up" Your Problem Solving Tool Box – Part One

Published April 21 2009 7:54 AM

This is part one of a four-part guest post contributed by Fred Nickols, Managing Partner of Distance Consulting LLC. All four parts focus on improving your problem solving efforts.

Introduction

Problems come in all sizes, shapes, and colors. There is no guaranteed step-by-step or "by the numbers" process for solving every problem we encounter. We must instead configure or adapt our problem solving processes to fit the problem at hand. As problem solvers, we have more in common with the cabinet-maker than with the assembly-line worker. What we need, then, are plans and blueprints, high-quality materials, a decent place to work, a well-stocked tool box, and the knowledge and skills necessary to properly select and use the tools in it. Toward that end, here are four tips for "beefing up" your problem solving toolbox.

1. Focus on clearly defining the solved state.
2. Be clear about all your goals and objectives.
3. Think of problem solving as a *"cover-the-bases"* activity.
4. Draw diagrams and otherwise picture the structure of the problem.

Tip #1: Focus on clearly defining the solved state

Pay at least as much attention to the solved state as you pay to the problem state. As Robert F. Mager's fable of the sea horse reminds us, "If you're not sure where you're going, you're liable to end up someplace else—and not even know it."

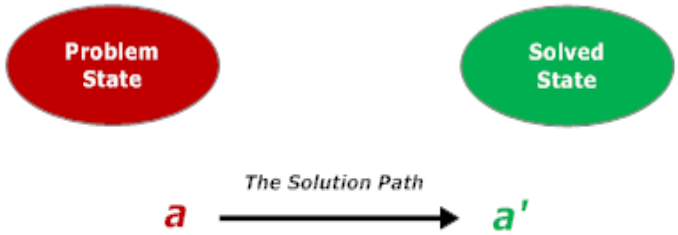

Figure 1

When solving a problem, we typically wish to do more than simply rid ourselves of some unacceptable situation. More often than not we are trying also to achieve some other, more desirable state of affairs.

Conceptually speaking, we're trying to move from the problem state (a) to the solved state (a'). We do so by traversing what is called "the solution path" (see Figure 1).

It seems obvious that if we do not focus some of our attention on the solved state, the likelihood of attaining it is diminished. Unfortunately, the problem state typically attracts all our attention. The squeaky problem state wheel gets the grease. On occasion, this is an appropriate response. If the roof is caving in, then discussions about where to go can wait until we're safely outside.

But, if we're not in an emergency situation and if we still have nothing more in mind than doing something to rid ourselves of the problem state, we can create situations where the solution to one problem creates one or more new problems. Solutions that create new problems are "inefficient" solutions. An "efficient" solution is one that creates no new problems.

Perhaps the best-known step in any problem solving process is the one most people think of as the first step: "Define the Problem." This is probably the most misunderstood and poorly executed step in the process. For many people, "Define the Problem" means simply to provide a written statement of the problem. There is much more to it than that. To define means to establish boundaries, to encompass, to enclose, to locate, to isolate, to distinguish, to differentiate, to set apart. To define the problem state (or the solved state) means, at the very least, to do the following:

- To establish boundaries; to delineate (*Locate*).
- To give distinguishing characteristics; to differentiate (*Isolate*).
- To state the nature of; to describe precisely (*Articulate*).
- To state the meaning of; to provide a definition (*Explicate*).

Rarely are definitions of the problem state or the solved state crystal-clear up front. Clarity typically develops over time. In many cases, the definition of a problem may be considered complete only after the problem has been solved. Until then, it is a shifting, evolving, changing part of the process. Thus, although "Defining the Problem" is a good step with which to begin the problem solving process, it is only a starting point and it must be revisited on a regular basis. This also is true of any definition of the solved state.

There are several ways of focusing on the solved state. One is to define it the same way we would define the problem state. Another is to list possible measures or indicators of its attainment. Ask yourself questions like these: "How will I know the problem has been solved? What will I accept as evidence? What does the solved state look like?" Yet another way is to be clear about all the goals and objectives of the problem solving effort. (This last point is so important that it constitutes a tip all its own—the next one.)