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I frequently work with organizations to provide skills in solving problems. The "problem solving" process is a significant process improvement tool that is part of the P Squared Team-Based Process Improvement Training. It teaches participants to understand an issue, get to the true root cause and evaluate and plan a viable solution.

When I read the following article, I felt it provided some valuable techniques of how to get a problem well defined so real progress can be made.

I hope it gives you some food for thought as you begin your week.

What's the Problem?

By Ben B. Graham, President of The Ben Graham Corporation

Charles Kettering - *"A problem well defined is half solved."*

Sometimes defining a problem is the key to its solution. The first step in solving any problem is understanding the problem. When this crucial first step is cast aside, the "would-be" problem-solvers rush in at full throttle contriving answers and solutions to perceived problems.

Collect facts that will help you understand the problem. Dig in. Ask questions. Break the facts down into manageable parts. Ask Why? Restate the problem. Think through the problem out loud.

Once the problem is understood, creativity techniques may be applied to come up with a solution. Creativity is applying original thought to a subject...a new idea. Creativity techniques provide us with ways to explore our experiences and apply them in new ways.

Use Fresh Eyes

"Fresh eyes" means finding a different way to look at something you are already familiar with. You may have used this technique without realizing it. Have you ever written a memo or letter (perhaps while you were in an irritated state) and then held on to it to review later? When you reviewed it later, were you relieved that you didn't send it out the first time? You had given yourself a chance to "cool off" and review the note with a different mindset. You might still feel the same emotional attachment to the original words but you have tempered them by rationalizing the potentially negative impact of publishing them.

You hang a picture on the wall and it looks fine...until you take a few steps back and get a wider perspective on how well it lines up with the walls, the ceiling and the floor. Your "fresh eyes" tell you that you're not finished yet.

When you are immersed in a project, if you don't step away from it every now and then, your mind may let you see the work as you want it to be rather than how it is. Raphael is said to have worked with an hourglass, never working longer than one hour at a time on any painting. James Michener established rigorous work habits; beginning each morning at 7:30, he sat on a hard wooden chair, used a manual typewriter, paper to the right, trash can to the left ...and he always walked away from it at noon, coming back the next day with a fresh mind.

Operating people often work, in a sense, with blinders on. They don't know what happens to the work before they get it and they don't know what happens to it once it leaves their work area. As a member of a business process improvement team, they use process charts to see their work from a new vantage point. They see the steps they work on as part of a bigger picture. They see what happens to the work before they get it and they see what happens to the work when it leaves their work area. The process chart gives them the opportunity to see how changes made to the work they do could help or hinder work further down the process flow and they may suggest or support changes earlier on in the process that can make their work easier or more effective. The process chart can give people a sense of worth by showing the value they add to the process.

Brainstorming

The concept of brainstorming is credited to Alex Osborn who described it in his book "Applied Imagination". Brainstorming is used to quickly gather a large number of ideas about a specific topic by using the following guidelines:

- No criticism of ideas
- Go for large quantities of ideas
- Build on each others ideas
- Encourage wild and exaggerated ideas

Brainstorming is a group activity that includes a facilitator who leads the session, goes over the guidelines and ensures they are followed, and a recorder (or recorders) who captures ALL the ideas that are presented. Flipcharts, blackboards, whiteboards are helpful to keep the ideas visible in front of the group.

A brainstorming session is used to generate lots of ideas without evaluation. Therefore, it is essential to follow up the brainstorming session with analysis of the ideas that were generated.

Questioning Method

Rudyard Kipling – *"I keep six honest serving-men (They taught me all I knew); their names are What and Why and When And How and Where and Who."* from The Elephant's Child

The questioning method helps us define existing situations and challenge them. Five of the questions (What, Who, When, Where and How) are objective with specific definable answers.

"Why?" on the other hand is evaluative. When we ask these questions in a specific way (combining each of the descriptive questions with "Why?"), they are particularly useful for challenging work methods. When we ask the questions, "**What** is happening here and **Why** is it happening?" and we find no reasonable explanation, we have an opportunity to eliminate work.

When we ask the questions, "**When** is this step done and **Why** is it done at that time?", "**Where** is this done and **Why** is it done there?", "**Who** does this and **Why** does this person do it?" we may find opportunities to combine or rearrange the work. When we ask the questions, "**How** it is done and **Why** do we do it that way", we find opportunities to redesign the work. The questioning method provides a structured format for generating ideas.