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## Problem Solving - The Root Cause Checklist

You see yourself as a problem solver. You see something that isn't right and quickly address it and move on. It's kind of addicting isn't it? Doesn't it feel great to knock one problem down, roll up your sleeves, and move to the next one! Isn't that the American way? Face it, you are a problem-fueled adrenaline junky!

The truth is that, more often than not, you spend way too much time moving from one problem to the next. More specifically, you spend a lot of time addressing the same problem over and over and over again until, eventually, it becomes 'the way things are'... you get used to it. Is that being effective? Is that moving you closer to your idea of success, or is it moving you farther away?

Effective problem solving means a structured process of finding and eliminating the root cause, preventing the problem from ever recurring. It requires a certain mind-set (attitude), knowledge base, and skills. In fact these three attributes are among the first elements addressed in our 6-M's problem solving checklist. Note that the following category checklist is presented in the order of occurrence, based on decades of experience and practice, from most likely to less likely.

**Man:** You may be surprised that 'people' are on the top of our list in terms of the sources of problems. Many management gurus and theorists have postulated that problems are almost never caused by people. It is understandable that they have taken that position given historical abuses by managers pointing fingers and attacking their employees for causing problems. It's all in the 'process' they say. To be fair, there is validity in that position, and frankly I have yet to meet the person who gets up in the morning and thinks; 'Ahhh, what a great day to screw things up.' Yet when you look at the underlying truths; people design the processes, people run the processes, and people hire and train people to work in the processes... and people are fallible... beings it



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doesn't take a rocket scientist to understand that 97% of problems are caused by people (read management).

I am an aging aerospace brat, so I have an affinity for acronyms. Acronyms can be useful in two ways. First, they make a handy form of shorthand to communicate between individuals that know the lingo, and secondly they are a powerful tool to improve memory and recall of important concepts. One of my favorite acronyms, as relates to problem solving, is A.S.K. It represents the three pillars of people-caused problems by asking three basic questions: Do they know WHAT to do?; Do they know HOW to do it?; and Do they WANT to do it? In other words, do the people involved have the Attitudes, Skills, and Knowledge necessary to do the right things, and do them right? The kicker is this; you must ask those questions of YOURSELF FIRST, before you ask them regarding everyone else who might be involved.

**Methods:** How you structure your system with policies, procedures, and processes is extremely important. Dr. Edwards Deming, long considered the father of the American quality revolution, believed that 96% of problems were caused by poorly designed processes. I agree, with the exceptions noted in the previous paragraph. If your processes are out of control and have wide latitudes of variation, you will have problems.... no matter how well trained, diligent, or motivated your people happen to be. You must, therefore, ask; What is it about HOW we do what we do that could cause the problem? For example, if you have a problem with customers upset because they have to wait a long time to get a decision on a complaint, and your complaint process requires six levels of sign offs to address a customer issue, your people can be the nicest most caring folks in the world... and you will still run off paying customers!

**Measures:** You get what you measure... so you had better be careful what you measure. Measures, or Metrics, are often a silent menace when it comes to causing problems. That's because they are often derived from well meaning traditional sources, yet can be devastating for the amount of damage they cause in your organization. For example, if machine uptime is the key measure that your people are focused on, their decisions and actions will be around keeping equipment running at all cost. Or, if reducing cost is the measure, cutting corners is in your future. Often times you can measure all the right things, but they are not integrated or stratified in such a way to drive meaningful problem solving.

**Machines:** This category is all about the equipment that may be associated with the problem. Are they working as designed? Are they operating within tolerance? Do you have a preventative, or preferably, a total productive maintenance plan? What has changed?



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**Materials:** Could there be defects in those things that go into the process where the problem exists? Are raw materials out of spec? Are you using the right materials, i.e., the copier has the wrong paper in it? I often share the story of a plant that I worked in that had recurring problem of broken hydraulic hoses, to the tune of almost \$100k a year. Using basic, but powerful, problem solving tools it was discovered that, to save money, the maintenance shop only stocked standard length hoses. Since they had to be long enough for the longest application, they were often too long and ended up pinched in the moving parts of the machine.

**Mother Nature:** This category doesn't always come into play for most problems and therefore is often overlooked. Things like moisture, dust, temperature, and other environmental factors can wreak havoc when you least suspect it. Don't consider this source of causes at your own peril.

Effective problem solving isn't about addressing the obvious, especially for institutionalized problems. It's about having the diligence to systematically investigating the truth about what is happening.

Martha Graham, the president of the American Ballet said, "With discipline comes freedom". Do you have the discipline to solve your problems once and for all? If you do, you will find that you will free up massive amounts of time, talent, and resources for profitable growth!

Man Measures Methods Materials Machines Mother Nature

