

Problem Solving

Problem solving is a key skill for project managers. Whilst there are many different approaches, most include the following basic steps:

- **Investigate the problem:** Find out when, why and how it occurred and its impact.
- **Prioritize it:** Problems occur all the time, focus urgent attention on problems that are both important and urgent (ie, show stoppers).
- **Identify the solutions:** Choose the solution that solves the root cause in the simplest way.
- **Make your decision and act on it:** carefully consider important decisions but once made, act immediately by communicating the actions needed to make it happen!

Generally not making a decision is worse than making one that's not 100% correct, you can adjust your aim later; see: *Ready, Fire, Aim* by Gerry Riskin.

Puzzles -v- Mysteries

Malcolm Gladwell's new book – *What the Dog Saw* makes the following distinction between a puzzle and a mystery:

Osama bin Laden's whereabouts are a puzzle. We can't find him because we don't have enough information. The key to the puzzle will probably come from someone close to bin Laden, and until we can find that source bin Laden will remain at large.

The problem of what would happen in Iraq after the toppling of Saddam Hussein was, by contrast, a mystery. It wasn't a question that had a simple, factual answer. Mysteries require judgments and the assessment of uncertainty.

Many issues with complex initiatives stem from a belief that all problems are puzzles and that just a little more information is all we need.

Mysteries are often hidden within too much information and understanding them is more closely aligned to the ideas contained in complexity theory¹; whereas puzzles respond well to the application of scientific management principles of measurement and research. The challenge is to recognise the difference!

Toyota's 'A3', 8 step problem solving methodology

1. Clarify the problem
2. Break down the problem
3. Set a target
4. Analyse the root cause 'the cause of the cause'
5. Develop countermeasures
6. See the countermeasures through
7. Monitor both the results and the process
8. Standardise successful processes

Source: Extreme Toyota; John Wiley & Sones Inc.

Also refer to the decision making model described in the *PMBOK® Guide* at p412, Appendix G.6.

¹ For more on complexity theory see: Mosaic's blogs at:
- <http://mosaicprojects.wordpress.com/category/general-project-management/complexity-general-project-management/>
- A Simple View of 'Complexity' in Project Management: http://www.mosaicprojects.com.au/Resources_Papers_070.html
- The Crossderry blog at: <http://crossderry.wordpress.com/experience-complexity-set/>

The Urgent / Important Matrix

Problems can be categorised by their urgency and importance.

- Urgent tasks are deadline based. This is usually driven by others. The sooner the task needs completion the more urgent it is.
- The importance of a job drives how much 'time' you want to spend on it. Notice that this is independent of 'urgency' and is what you want to do.

This matrix separates problems into 4 categories:

- **Urgent and important** problems must be resolved now. These are critical and also support your goals so make a decision to solve them.
- **Urgent but not important** problems tend to be generated by others. Because you don't really want to spend much time on tasks not connected with your goals delegate their solution to a competent assistant.
- **Important but not urgent** problems that need to be resolved before they become urgent. Ensure you allow adequate time to resolve them.
- **Not urgent and not important** issues are probably not real problems. Definitely delegate their solution to a team member. Keep a watching brief just in case the problem escalates in importance or urgency.

Conflict and turf wars don't help anyone!

To reframe a problem that could lead to conflict, honour the truth on both sides of the debate².

- **Embrace 'And'** – Eliminate either/or thinking by harnessing the power of 'and'. 'And' enables us to consider ideas different from our own, leading to solutions that either/or thinkers would have missed.
- **Make Peace With Ambiguity** – Fear is a primal instinct needed to survive, and fear holds us in the either/or mindset. Our brain locks on to what we believe to be true, and, as a result, we expend energy defending it, which prohibits us from hearing any other sides to the argument. Most solutions to dilemmas are in the grey areas between black and white, there may be no perfect answer! Accepting ambiguity allows a joint exploration towards the best 'truth'.
- **Allow Other Perspectives** – In order to achieve your objectives, you must consider the objectives of others. While it's easy to become consumed your own goals, ignoring the goals that are driving someone else prohibits you from working as a team to get what you both want.
- **Seek Higher Ground** – Seeking higher ground requires us to look beyond the conflict or issue at hand to see the bigger picture, considering the full context of the situation. It involves elevating our minds above the thinking that there are only two choices and allows the creation of a different choice — one that helps everyone achieve what they really need.
- **Discern Intent** – Proposed solutions are based on what someone believes is the best way to solve a problem. Whether or not you agree with their solution, it's critical that you try to understand their intent. Chances are their solution wasn't derived from any intent to harm you, the project or the company.
- **Elevate Others** – Help others to elevate their thinking by going beyond the narrow questions focused on blame to more expansive questions that allow us to all think more deeply. Elevating our thinking allows us to think more creatively, assimilate multiple ideas, uncover the core truths behind proposed solutions and, naturally, solve conflicts more effectively and without the drama.
- **Be The Peace** – Go beyond being a peacekeeper and instead be a peacemaker. Rather than simply keeping the conflict under wraps, learn how to embrace other ideas and assimilate conflicting ideas into a solution that far surpasses either idea.

² Based on ideas in *The Triangle of Truth The Surprisingly Simple Secret to Resolving Conflicts Large and Small* by Lisa Earle McLeod, Perigee; January 2010

Using SOAP³

Decisions usually have to be made with between 40% and 80% of the information needed to make a certain decision. Applying **SOAP** helps clean up the process: You use SOAP in the order of the letters and write down the information gathered at each step:

S = Subjective information; ideas, insights, opinions and feelings (these are important).

O = Objective information; measurable observable data.

A = Analysis of all of the information. Combine both the subjective and the objective.

P = Plan your action. And then implement (you're ready so Fire and adjust your aim later).

³ SOAP was developed by Prof. Laurence Weed, University of Vermont.