

Tom's Ten Data Tips – March 2007

Problem Analysis

Problems manifest themselves as the discrepancy between an "as is" state, and an "as it *should be*" desire. The answer to: "what's the problem?" should be complemented with "Who has a problem?", and "Why is that a problem?" to further understanding. Different people suffer in different ways from the same "situation". For every person or party, the answer must be found what the essence of *their* problem is. This will often lead to many facets to the same "problem".

For example, consider the problem: "there are too many homeless in Paris." The clochards may say: "we don't have enough sleeping tents for all of us." Tourists may say: "there is poverty and beggars everywhere, this disturbs us." The mayor may say: "clochards drain the social system." What the problem is depends heavily on who you ask this. The homeless could be helped by simply supplying more tents for shelter. The tourists' problem might go away by informing them about the care that is taken for homeless (changing the image). And the mayor's problem can be solved by either getting more government funds, or conversely stopping all help.

1. The #1 Threat To Accurate Problem Definition Is The Irresistible Urge To Solve It

All too many pressing problems wind up lingering because a fast solution was sought. Not just a hurried, half way solution, just a fast and 'efficient' one. In the west, we have been 'raised' to immediately help as soon as a problem occurs. As a result, carefully listening what the problem *exactly* is, tends to suffer.

The problem question has three essential, but distinct elements:

- "what is the problem?"; which situation is causing grief?
- "what *is* the problem?"; why is that situation undesirable?
- "what is the *problem?*." where is this problem causing 'pain'?

2. Don't Rush To Answer A Question Before You Know What It Is

In line with tip #1, a solution *must* wait the definitive answer to the question: "what is the problem?" The knee-jerk reflex is just that: a

knee jerk. Instead, what is needed, is a solution that will address the fundamental issue. If not, you risk finding a solution, but not necessarily for the problem at hand ... J

Success or failure in problem solving sometimes hinges on minute differences in the problem definition. Even an accurate view of the “big picture” lies in positioning the details. Sometimes it appears there is never time to do the problem analysis right. But when a misfitting solution causes grief, there is always time to do it again. This can hardly be the right way to manage an issue.

3. *Double Check Your Problem Definition To Ensure Everyone Perceives It The Same*

There can be surprising ambiguity in language, especially when the other person fails to see the problem the way you do J .

One effective way to test for understanding is to ask others to describe *your* problem in their own words. Yet another way is to describe the same problem in different wordings, to see if all involved *still* perceive it the same. Or have everyone dream up at least three reasons why the current problem definition is wrong. Test your problem definition on naïve colleagues – do they perceive it the same?

The devil is in the details. “Is this all right?” can be taken to mean: “*is* this all right?”, “is *this* all right?”, “is this *all* right?”, or even “is this all right?”!! These “language games” can be a very economical insurance premium against discovering the dysfunctional solution actually solves another problem than intended...

4. *Misfits Are Usually Easy To Fix, Once They Become Apparent*

A misfit is a requested but unwanted solution. The reason why they are unwanted only becomes apparent upon implementation.

In many cases, long after the problem apparently was solved, the misfit becomes apparent. Dramatic examples are use of the medicine Softenon, or agent Orange in Vietnam. In our Parisian example, the policy of setting up tents for clochards may turn out to draw more and more homeless to Paris, thus aggravating the initial problem it was meant to relieve.

5. Manage The Problem Solving *Process*, Not The *Content* (=Solution)

Many substantial problems requires a team effort to resolve. In such cases, governing the flow of work to enhance productivity requires:

- Mutual understanding of what the problem *really* is. Except for shared clarification of the specifications, it can be exceedingly productive to go back to the source to interactively determine whether the written specifications (still) match the effective needs.
- Regulating the flow of ideas, and potential solutions. Too few ideas diminishes the chance of a successful solution, but too many risks discarding a potentially good one (that may need a minor change).
- Ensuring that the outcome meets the requirements. This includes (re)checking the development schedule, assessing quality, and uncompromised testing.

This all comes down to managing the process that converges to a solution, rather than getting bogged down in the actual solution itself. You can (unfortunately) *never* be sure of the *content*, but you can ensure a solid *process*.

6. Determine How The Problem Has (And Will) Evolved Over Time

An essential part of problem analysis is determining its anamnesis. Some problems became “problems” because a stable, existing situation was all of a sudden no longer acceptable. Sometimes the actual situation is gradually deteriorating and becomes no longer acceptable. Other problems have an acute onset in reality. Which of these scenarios applies is essential to know!

7. Instead Of Arguing Over The *Solution*, Determine Whether You Agree On The *Problem*

Have you been part of endless arguments over the relative value of alternative solutions? Some of these discussions can take forever, until a common understanding of the *problem* emerges. Determine whether you have a conflict over alternative *destinations* or different *routes* to reach the same destination.

Group-based explaining of pros and cons of alternative solutions have merit, even more so when each solution refers back to the original problem definition. In fact, such discussions are often short-circuited

once it becomes clear not all team members have a common understanding of the problem definition.

8. Phantom Problems Are Real Problems

Phantom problems occur when the difference between what's wanted and the perception of reality is due to a misrepresentation of reality. The mayor of Bombay may think that the Parisian mayor's problem with the homeless is really a phantom problem. But his French colleague has a problem nonetheless!

9. Stress Test Your Problem Solution

Every solution is the beginning of a new problem. Usually these new problems are a surprise. In our Parisian clochard example for instance, how many "new" problems could you imagine if the municipal government decided to increase the number of sleeping tents available for the homeless? Attraction of homeless from outside the city, increased longevity of existing clochards (thus increasing their number), decreased motivation to reintegrate in society, etc.

By thinking through unwanted side effects of solution, one can preempt misfits for existing solutions. Anticipation of misfits can greatly enhance problem solutions, and even the initial problem definition.

10. Business Alignment Results From Merging Problem Holder And Problem Owner

The problem holder is the person who *experiences* a problem, who suffers the pain, so to speak. The problem owner is the person who controls the resources to resolve it. A lot of "organizational friction" is the result of silo's that misalign these two.

An example: a marketing campaign results in a flood of complaints. Your customer contact center now has just become the problem holder, since they have to work overtime to handle and (attempt to) resolve all these complaints. What will stop the manager with fiduciary responsibility from spending marketing dollars differently next time? Very little, if the campaign was deemed a commercial success (at least in the short run...), and their resources aren't depleted to pay for the overtime. When call center and marketing feel the pain in synchrony, we know that the urge to find a solution will grow – dramatically.

Robust alignment within organizations makes for the most resilient, and flexible business model. When someone is problem owner, but not the problem holder (yet), make sure they become it! Or the converse: when it really *is* someone else's problem, make sure it *becomes* someone else's problem.