

Chapter 7

SURVIVAL and PI

As we have stated already, there are significant risks to any process improvement effort that vary according to the environment. So it makes sense to provide some general comments on how you can react to and overcome risks that turn into problems.

Perhaps surprisingly, we turn to the U.S. Army's survival handbook to help us with a framework for our discussion.¹ As shown in Figure 7-1, the handbook uses the word *survival* as an acronym for a set of principles. The remainder of this chapter describes how each of these principles applies to you and your PI initiative. Unlike in DLI, you should keep these principles in mind no matter where you are in your improvement journey. For each element, we'll start with the army's version and then follow it with our interpretation for process improvement.² You are free to interpret and extrapolate for yourself as well, of course. For each of the elements of SURVIVAL, we will list relevant techniques discussed in this book or provide additional references.[†]

[†] Thanks to Chuck Myers for coming up with the idea of using the *U.S. Army Survival Manual* in the referenced "Process Improvement Insurgency" tutorial several years ago. This is one of those metaphors that just keeps working!

Size up the situation

Undue haste makes waste

Remember where you are

Vanquish fear and panic

Improvise

Value living

Act like the natives

Live by your wits, learn basic skills

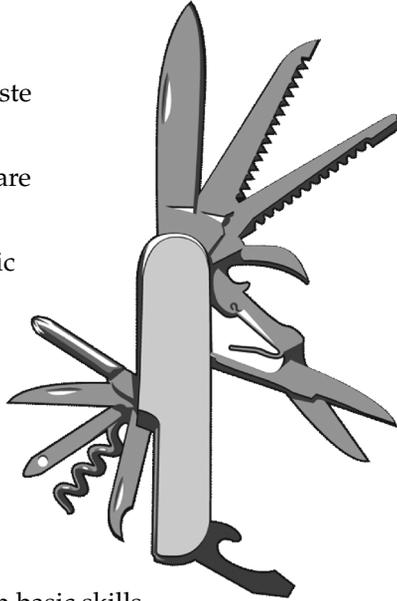


Figure 7-1: *SURVIVAL*

7.1 Size up the situation

The *U.S. Army Survival Manual* says:

Size up your environment, physical condition, and equipment.

- **Environment**—Learn the rhythms of the area you are in.
- **Personal condition**—Take stock of any injuries from battle.
- **Equipment**—Take stock of the condition of your weapons.

The first thing you need to do when confronted with a survival situation is to take a good, long look at the environment: where you are, what you're doing, and what might be impacting your progress. To do this, you can expand the notion of environment to include all the parts of the PI initiative and all

the internal and external forces that impact it. Note that this is essentially what the process-influence triangle in Chapter 1 describes. This must include political and social factors. Have these factors changed since you began? In what way does the change affect your activities? Are there immediately obvious threats or protections? If you don't take time to look around and assess the situation, you may respond in a way that could jeopardize the PI effort's chances of surviving.

Sizing up your personal condition includes looking at how you and other members of the PI team are handling the stress that always comes with change. Are you asking more of yourselves and your stakeholders than you can effectively provide? Do you have the right skills and capabilities? Are there issues within the team that need to be resolved before dealing with the immediate problem? Checking the health of the people involved ensures that there are no other problems. As a friend from England once said, "You may be applying plaster after plaster to the wound you see, all the while bleeding to death from the wound you don't see!"

Taking stock of tools and weapons involves looking at your approaches, your people, your infrastructure, and even the target organization. Are the approaches and methods you are using effective and showing results? Is the network of people you need for information and support still viable? Do you need to look for a new tool or tactic? It's important that you know the tools that are working and those that aren't so that your recovery plan doesn't depend on a faulty premise.

Techniques that support *Size up the situation*:

- Readiness/fit analysis
- Satir change model

7.2 Undue haste makes waste

The manual says:

You may make a wrong move when you react quickly without thinking or planning, and that move may result in your capture or death. Don't move just for the sake of taking action. Consider all aspects of your situation (size up your situation) before you make a decision and a move. If you act in haste, you may forget or lose some of your equip-

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ment, and you may become disoriented so that you don't know which way to go. Plan your moves so that you are prepared to move out quickly without endangering yourself if the enemy is near you.

One of the most important reasons for sizing up the situation is to prevent taking action that ultimately could be harmful. Much of the scouting and planning we describe in the first two parts of the book is useful even during the execution of your project. A common pitfall for change efforts is charging ahead before sufficient commitment for the effort has been made by the relevant management team.

There are several possible ways to make sure you take the appropriate amount of time. Using the Reflect phase of the DLI life cycle as a "haste" monitor can keep you from jumping from success headlong into a major barrier. If you treat organizational change as a project with the relevant product development standards being applied, you can slow down before moving into unknown territory and identify the risks that are likely to occur. By having thought through your activities during planning, you'll also be less likely to become disoriented or distracted from your goals.

Techniques that support *Undue haste makes waste*:

- Technology adoption measurement
- Project retrospectives
- Readiness and fit analysis

7.3 Remember where you are

The manual says:

Pay close attention to where you are and to where you are going. Do not rely on others present to keep track of the route. Constantly orient yourself. You should always try to determine, as a minimum, how your location relates to:

- The location of enemy units and controlled areas.
- The location of friendly units and controlled areas.
- The location of local water sources (this is especially important in the desert).

- Areas that will provide good cover and concealment.

Although true for every kind of project, it is especially critical that PI initiatives maintain orientation and track effort and benefits. One of the best tools for survival is the ability to show benefit from your effort. That will never happen if you aren't vigilant in monitoring your progress.

Maintaining communications with both supporters and the opposition (friendly and enemy units) is important to knowing where to expect push-back and where you can depend on support. Without this understanding, you may find yourself without the support you expected or miss an opportunity to turn an enemy into a friend.

Knowing safe territory and where to find scarce resources can help you through the inevitable lean times. Paying attention to your successes over time can provide you a stock of good will and champions when they are most needed. Having several sponsors and funding sources is ideal, although admittedly rare.

Not relying on others to determine your status keeps your opposition from hijacking your project and framing the numbers to put you in the worst possible light. Always be ready to defend your position and status. One of the key parts of your infrastructure should be a measurement framework to measure your progress toward your established goals. Measurement can't be left to chance; it has to be embedded in almost everything you do, but without a lot of overhead. A well-designed, lightweight measurement framework can help—especially one that tracks progress toward adoption of the new practices you're trying to implement.

Techniques that support *Remember where you are*:

- Satir change model
- Communications planning
- Technology adoption measurement (diffusion and infusion)

7.4 Vanquish fear and panic

The manual says:

The greatest enemies in a combat survival/evasion situation are fear and panic. If uncontrolled, they can destroy your ability to make an intelligent

decision. They may cause you to react to your feelings and imagination rather than to your situation. They can drain your energy and thereby cause other negative emotions. Previous survival/evasion training and self-confidence will enable you to vanquish fear and panic.

Although generally not expressed by running and screaming, fear and panic often occur in process improvement or other change efforts. Both the change agent and the changed are vulnerable. Actual or perceived actions or conditions can trigger the panic response. Recognition and preparation can mitigate this risk by providing time to adapt and negating the impact of surprise.

Often, fear and panic are caused by a chain reaction of poor communication, active imaginations, and preconceived notions that result in imagined conclusions. Perception is all-important. Maintaining a clear understanding of where you are includes honestly and intentionally testing the perceptions of those involved. In the same vein, don't succumb to reacting to rumors. Track down the truth to the best of your ability, and use it to break the panic cycle as soon as possible.

Communication and training are also prophylactic activities for preventing fear and panic. Taking time to have the team role-play some common scenarios may seem to be overkill, but if the organization is likely to resist your activities strongly, role-playing may be useful.

People are often fearful when they first approach a model like CMMI. It looks so big and seems so complicated, and you hear all kinds of stories about it (both good and bad). Which stories should you believe? As with many scary things, the reality is often less than the image. When you're looking at the size of CMMI, for example, it is worth noting that the required and expected elements of the model take up fewer than 50 pages of the 600-pages-plus CMMI book.³ The other pages contain informative material intended to help you understand the use of the model and multiple contexts for its use. Often, giving new users that piece of data alone reduces the fear level by a significant amount!

Techniques that support *Vanquish fear and panic*:

- Satir change model
- Communications planning

7.5 Improve

The manual says:

This easy-to-come easy-to-replace culture of ours makes it unnecessary for us to improvise. This inexperience in improvisation can be one of the greatest enemies in a survival situation. Learn to improvise. Take a tool designed for a specific purpose and see how many other uses you can make of it. Learn to use natural things around you for different needs. An example is using a rock for a hammer. No matter how complete a survival kit you have with you, it will run out or wear out after awhile. But your imagination will not. Use it.

Imagination and creativity can be some of the most effective competencies to bring to bear on process improvement tasks. Agility depends on using the things at hand to solve problems. Being able to see new uses for existing objects is the best way to keep costs down and react quickly to problems.

Existing objects can be structures, communication paths, tools, reports, data, processes, practices, or gatherings. Piggyback on existing meetings or reports so as to lower overhead. Can you use the corporate dashboard to show improvement progress along with other project data? Use existing planning or requirements tools for your improvement project. Approaches from other disciplines—Total Quality Management (TQM), lean manufacturing (Toyota), Business Process Reengineering, software, systems, or other types of engineering—may be just the thing for you to get through to those difficult individuals or groups. Could a TQM force-field diagram help you determine the best way to approach a difficult audience? If you see something you think could be useful, follow SuZ's process improvement guerilla battle cry: "Reuse with pride! (But don't forget to credit your source.)"

Techniques that support *Improvise*:

- Crime Scene Investigation exercise
- Developing useful process guidance
- TBA-IPi and the IBMM

7.6 Value living

The manual says:

All of us were born kicking and fighting to live. But we have become used to the soft life. We have become creatures of comfort. We dislike inconveniences and discomforts. So, what happens when we are faced with a survival situation with its stresses, inconveniences, and discomforts? This is when the will to live—placing a high value on living—is vital. The experience and knowledge you have gained through life and through your Army training have bearing on your will to live. Stubbornness, a refusal to give in to problems and obstacles that face you, will give you the mental and physical strength to endure.

This is one that's a bit tough to interpret at first, because we usually don't think of our organizational interactions as being "life or death"—but the change effort may mean the difference between retaining in-house software development capability and outsourcing that part of a product.

You may not need much physical strength to endure the organizational environment, but most change agents would agree that you need significant mental *and* emotional strength to endure. Certainly, key factors in success are the perseverance and stamina of the process improvement lead. There will be times when it will be easier to quit than go forward. The ability to overcome the temptation to quit for the wrong reasons is another important characteristic of PI leaders. There are some valid reasons to quit or radically change a PI effort, of course, and the strength to accept those is just as important.

One way to interpret *Value living* is to think of it as *Value living in this organization*. Essentially, one of the things you will want to review at various times in your improvement effort is whether you're still content being a citizen of the organization you're working in. If you reach a point where the answer is "No," you have ceased *Value living* in your organization, and it's probably time to think about alternatives.

We don't have particular techniques in Part 3 to address this (SuZ is fond of saying, "I don't do organizational therapy"). However, here are a couple of

useful external resources we've used to help understand our own role in an organization and how we are dealing with it:

- *Please Understand Me*, by David Keirse and Marilyn Bates, a book on using a popular personality typing technique, the Myers-Briggs Type Indicator, to understand some of your own and your fellow team members' preferences in several dimensions.⁴
- *Emotional Intelligence*, by Daniel Goldman, a book that postulates an Emotional Quotient similar to the more familiar Intelligence Quotient (IQ).⁵

7.7 Act like the natives

The manual says:

The natives and animals of a region have adapted to their environment. To get a feel of the area, watch how the people go about their daily routine. When and what do they eat? When, where, and how do they get their food? When and where do they go for water? What time do they usually go to bed and get up? These things are important to you as an evader.

To some extent, we all adapt to the cultural environment of our organization. Learning to identify what adaptations people need to make to be effective in their organization can indicate areas where improvements would be welcomed.

You need to understand the "as is" organization and how decisions are reached in the current environment in the same way that you understand an "as is" process—perhaps not to the same level of detail, but well enough to realize how products get from "here to there" and into their next important transformation.

Observing the people affected by process change is also important. Try to adjust your communications and acceptance-building to the rhythm and structure of their activities. Easing into the flow will help you be less intrusive and perhaps seen as less of a threat to the status quo.

Communicating new or changed processes is difficult, particularly in large organizations. Central repositories are essential, but access must be easy, and incentives must be provided for use; otherwise, the electronic (or physical) dust will grow deep. Team-building and understanding the human dimensions of change can help speed acceptance and generate new change agents.

Techniques that support *Act like the natives*:

- Satir change model
- Developing useful process guidance

7.8 Live by your wits, learn basic skills

The manual says:

Without training in basic skills for surviving and evading on the battlefield, your chances of living through a combat survival/evasion situation are slight. The time to learn these basic skills is *now*—not when you are headed for or are in the battle. How you decide to equip yourself prior to deployment will impact on whether or not you survive. You need to know about the environment to which you are going, and you must practice basic skills geared to that environment. For instance, if you are going to a desert, you need to know how to get water in the desert.

It takes time to adapt your behaviors to a “hostile situation.” Thinking ahead and practicing early will make the transition easier. Understand your tools and techniques, and be efficient in using them. Wasting people’s time trying to get a new appraisal spreadsheet to work doesn’t endear you to the busy people you are hoping to help.

As stated in Part I, you should scout out the environment so that there are as few surprises as possible. The skills you need to manage change in different organizational contexts are quite different in some areas. Make sure you have the right skill set for the context. Do good planning, but don’t be locked into the plan if the territory changes.

Developing and sustaining the mechanisms to perform the various process improvement activities and to manage the initiative over time is difficult and fraught with peril. If too little effort is spent, the initiative may be mired in a swamp full of tasks that never seem to be assigned to anyone. On the other hand, too much effort can kill any chance of a positive ROI, as well as give rise to the dreaded “process police” syndrome.

Part of the purpose of this book is to introduce you to some of the skills that we have seen as being crucial to starting and sustaining an improvement

effort. Getting the right training for your improvement participants earlier rather than later (although not so early that they'll forget what to do in between training and applying!) is usually a good investment, especially if you're at a place where you know you need to do something but don't really understand what.

Techniques that support *Live by your wits, learn basic skills*:

- Everything!

7.9 Summary of Part III

In this part, we paused to take a breath before going forward with our process improvement journey and to provide some tools that will help you see things differently as you move forward. Our fictional case study has given you a picture of success in terms of what a relatively smooth initial improvement effort would look like. Your story will be different—smoother in some areas and rougher in others—but we encourage you to record your own story as you go along, for two reasons:

- The act of recording your story is one of the ways to reflect on your experience, which we strongly believe is one of the success factors in improvement.
- The SEI, as a community repository of industry data, often solicits case-study information, and contributing what you can is one of the ways that you can help advance the state of the practice in process improvement.

We also provided you with a literal survival-manual excerpt that has an amazing amount of wisdom for those who are working “in the trenches” of process improvement. We're sure that the U.S. Army never thought about this particular use of the wisdom that has gotten generations of soldiers through physically perilous situations. But the people we know in the army would be glad that even us “desk jockeys” have found something worthy in their doctrine. SuZ has given out many copies of a slide with the SURVIVAL acronym spelled out to people she's consulted or worked with. Even without the material in Part III, just having a discussion with someone about what this means can be enlightening.

Break's over, and it's time to get back to the tasks at hand: getting your improvement effort started and keeping it on track. If you're a sponsor of improvement, you may want to dip into Chapter 8, where we talk explicitly about obtaining and sustaining sponsorship for improvement, and Chapter 9,

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where we talk about setting and measuring against goals. Beyond that, you may not be as interested in the tools and techniques that we'll be presenting, although we'll be pleased if you decide that they are worth your time.

If you're the process improvement champion or leader, this is the heart of the book and the heart of the activities you'll be involved in. If you've already been through your own improvement effort, this may be where you start reading to find approaches that you missed on your first pass. At minimum, we expect that we'll be able to explain some of the things that may have puzzled you as you worked your way through your first cycle.

1. U.S. Army. *FM 21-76: U.S. Army Survival Manual*. (New York: Dorset Press, 1999).
2. Garcia, Suzanne, and Charles Meyers. "Out from Dependency: Thriving as a Process Insurgent in a Sometimes Hostile Environment." In *Proceedings of SEPG 2003*. (Pittsburgh: Carnegie Mellon University, 2003).
3. Chrissis, Mary Beth, Mike Conrad, and Sandy Shrum. *CMMI: Guidelines for Process Integration and Product Improvement*. (Boston: Addison-Wesley, 2003).
4. Keirsey, David and Marilyn Bates. *Please Understand Me II: Temperament, Character, Intelligence*. (Del Mar, CA: Prometheus Nemesis Books, 1998).
5. Goldman, Daniel. *Emotional Intelligence: Why It Can Matter More Than IQ*. (New York: Bantam Books, 1995).

