Also by John Shook

Learning to See: Value Stream Mapping to Add Value and Eliminate Muda

Kaizen Express
Managing to Learn

Using the A3 management process to solve problems, gain agreement, mentor, and lead

by John Shook

Foreword by Jim Womack

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I’m indebted to more people who helped make this book possible than I can possibly thank.

My debt of gratitude begins with my many mentors at Toyota. Whatever I have learned about management and the A3 process owes everything to them. For my first managers, Isao Yoshino and Ken Kunieda, teaching me the A3 process wasn’t merely an act of kindness on their part—they desperately needed me to learn the thinking and gain the skills so I could begin to make myself useful. From learning as a novice under their guidance to years later assisting Mike Masaki address the challenge of introducing A3 thinking to an organization of American engineers, my mentors have been many and my learning constant.

I also have many to thank for specific help in writing this book. Mathew Lovejoy, Scott Heydon, Lynn Kelly, Eric Ethington, Cindy Swank, and Jerry Bussell each provided insightful and critical feedback from the perspective of executives learning to use the process to make real progress in their companies.

Jack Billi and Denise Bennett helped me appreciate the powerful role the A3 process can play in introducing lean thinking to complex healthcare organizations. The manuscript itself benefited greatly and specifically from Jack’s insights and red pen.

Durward Sobek, Art Smalley, and Mike Rother were all, coincidentally, writing manuscripts on related topics at the same time; this book grew more than a little from our ongoing discussions and collaborations. Richard Whiteside and Terry Vigdorth provided commentary challenging both the concepts and the presentation that was valuable in shaping the story.

David Verble and Jeff Smith, two fellow ex-Toyota colleagues with whom I have shared this learning journey for many years, read the manuscript and provided predictably critical and, therefore, especially valuable feedback: Your names both appear briefly elsewhere within these pages—they could appear on each page.

Thanks, too, for critical feedback from Tom Waters and Tim Andree, fellow veterans of A3 wars from years we spent together on the front lines of Toyota in Japan back in the 1980s.
Of course, collaboration from the Lean Enterprise Institute community has been instrumental. David Brunt and Dan Jones of the Lean Enterprise Academy UK provided valuable critique, while Jose Ferro, Flavio Picchi, and Gilberto Kosaka at the Lean Institute Brasil are already hard at work on the Portuguese translation! Special thanks are due to Dave LaHote, Dave Logozzo, and Helen Zak for ongoing support and encouragement on this and other collaborations, as well as LEI staff who offered their critiques through the process. Michael Brassard provided advice, critique, debate, and insights—this book would not be what it is without the support you provided.

The editorial team of George Taninecz, Tom Ehrenfeld, and Thomas Skehan made hard work fun, fun work productive, and productive work rewarding. I hope you are ready for Round Two.

Jim Womack deserves special gratitude for his encouraging and cajoling to write this book to begin with. Jim often states that the most significant help he provides individuals along their lean journey (a phrasing that Jim hates, and I therefore gleefully use here) is to simply provide them with courage: In this case, at least, there would be no book were it not for Jim’s encouragement.

Most of all, this is dedicated to my son Jesse, a lieutenant in the United States Marine Corp, and daughter Saya, going to school full-time and working full-time in Tokyo; you don’t how much you inspired me as I was writing this. This is for you, as you embark on your own journeys of life and learning to destinations unknown.

John Shook
Foreword

I’m enormously excited about this book. John Shook’s Managing to Learn seeks to answer a simple but profound question: What is at the heart of lean management and lean leadership?

In addressing this question, Managing to Learn helps fill in the gap between our understanding of lean tools, such as value-stream mapping, and the sustainable application of these tools. In the process it reveals:

- The distinction between old-fashioned, top-down, command-and-control management and lean management.
- The difference between an organization based on authority and one based on responsibility.
- The enduring benefits realized by managers who dig deep in the details to discover root causes rather than jumping to solutions.
- The power of creating lean managers and leaders through the process of solving problems and implementing plans.

Managing to Learn shines a bright light on the many dimensions by which the lean method is superior to today’s dominant approach to management and to leadership (which are often nothing more than firefighting). Perhaps most extraordinarily, this book shows how this better method of management is taught and learned through dialogue about concrete problems. It does this by means of a dialogue between a lean manager and a subordinate who learns lean management and leadership as he solves an important problem.

This process of solving problems while creating better employees—A3 analysis—is core to the Toyota management system. An A3 report guides the dialogue and analysis. It identifies the current situation, the nature of the issue, the range of possible countermeasures, the best countermeasure, the means (who will do what when) to put it into practice, and the evidence that the issue has actually been addressed.

This volume describes A3 analysis and provides examples of how to use the tool. But its truly important contribution is to explain the thought process behind the tool—A3 thinking. Indeed, A3 thinking turns routine managing into cumulative learning for the whole organization. Hence the title, Managing to Learn.

Because A3 thinking is so different from conventional management thinking, only someone who actually has experienced it as an employee and deployed it as a manager can fully explain its nuances. John is therefore the ideal author. He was hired in 1983 as an employee at Toyota in Japan, where he learned A3 as the pupil, the deshi. As he became a manager he practiced A3 as the teacher, the sensei. At the same time, he was
still the deshi of higher-level managers, whose core management tasks included teaching additional aspects of A3 analysis to everyone they managed.

John’s job eventually became to help manage the transfer of Toyota’s lean management system across the world. He began this work at the NUMMI joint venture with General Motors in 1984, and continued with the startup of Toyota’s Georgetown facility in 1986. Next, he transferred to Toyota’s rapidly expanding North American engineering center in Ann Arbor, MI, and then finished his Toyota career helping launch the Toyota Supplier Support Center in Kentucky. At every stop he taught A3 thinking by mentoring younger managers and employees, and continued his own learning through A3 dialogue with his superiors. Since leaving Toyota he has taught these principles to organizations across the world.

John’s book is a unique achievement in explaining a vital management tool while at the same time revealing the thought process behind its use. To achieve this dual purpose the book employs a unique layout. The thoughts and actions of the lower-level manager are on the left side of the page and the simultaneous thoughts and actions of the higher-level supervisor are on the right side. You will see a learning process unfolding as a complex problem is solved and a new lean manager is created.

The transition to A3 management is a major leap for all of us. It demands that we manage by PDCA (plan, do, check, act), the scientific method, and science is hard work. We all want to jump to conclusions about what to do, and then be given the freedom as managers to “just do it.” Yet A3 thinking continually pulls us toward a much more constructive reality. There we look hard at the current situation, dig deep to discover the root cause of problems, consider many countermeasures (not just the most obvious “solution”), rigorously lay out an implementation plan, and carefully collect data to see if our countermeasure has really improved the situation. And then we repeat this cycle.

In Managing to Learn, John has captured the thought process behind lean management and leadership. And he has provided the methods you will need to succeed with A3 analysis. This way of thinking is essential to gaining and sustaining the benefits of the lean tools you have already mastered.

We are eager to hear about your successes as well as your difficulties. Please contact us and John by sending your comments and questions to mtl@lean.org. With a bit of practice and a lot of perseverance, we can all manage to learn.

Jim Womack
Chairman, Lean Enterprise Institute
October 2008
Introduction

At Toyota, where I worked for more than 10 years, the way of thinking about problems and learning from them for more effective planning, decision-making, and execution is one of the secrets of the company’s success. The process by which the company identifies, frames, and then acts on problems and challenges at all levels—perhaps the key to its entire system of developing talent and continually deepening its knowledge and capabilities—can be found in the structure of its A3 process.

And so this book is designed to help you learn from your problems as you seek to solve them, while at the same time producing innovative and problem-solving employees. Many elements of the Toyota system have been held up as the key to its tremendous success, but the most important accomplishment of the company is simply that it has learned to learn.

Many people familiar with A3 reports see them primarily as a simple communication tool or problem-solving technique. It’s understandable that they focus on this immediate, though limited, application. A3s are, indeed, powerful tools that lead to effective countermeasures based on facts. As a result, companies that successfully implement them for decision-making, planning, proposals, and problem-solving can realize instant gains.

But in this book I also want to reveal A3 as a management process. The widespread adoption of the A3 process standardizes a methodology for innovating, planning, problem-solving, and building foundational structures for sharing a broader and deeper form of thinking. This produces organizational learning that is deeply rooted in the work itself—operational learning.

Discovery at Toyota

I discovered the A3 process of managing to learn firsthand during the natural course of my work in Toyota City beginning in 1983. I was mentored and saw my Japanese colleagues both being mentored and mentoring others in the company’s most prevalent management tool—its most visible form of organizational “currency.” My colleagues and I wrote A3s almost daily. We would joke, and lament, that it seemed we would regularly rewrite A3s 10 times or more. We would write and revise them, tear them up and start over, discuss them and curse them, all as ways of clarifying our own thinking, learning from others, informing and teaching others, capturing lessons learned, hammering down decisions, and reflecting on what was going on.
Every year I saw new Toyota recruits, just graduated from the university, arrive at their desks to find a blank sheet of A3-sized paper, a mentor, and a problem or project for which they were assigned ownership. Over the course of the first months, each would be coached through A3 thinking. They explored how to “go see” and comprehend the real nature of a problem, how to analyze it, and how to take effective initiative to work the organization to develop reasonable countermeasures to improve the situation.

My own epiphany came when my boss told me, “Never tell your staff exactly what to do. Whenever you do that, you take responsibility away from them.” His comments revealed how Toyota operates not as an “authority-based” but a “responsibility-based” organization. Almost all organizations (certainly all large ones) are cross-functional in operation while being functional in structure. This results in a matrix that so often leaves ownership unclear, decision-making stymied, and everyone frustrated.

**Pull-Based Authority**

In stark contrast, effective use of the A3 process can facilitate the shift from a *debate* about who owns what (an authority-focused debate) to a *dialogue* around *what is the right thing to do* (a responsibility-focused conversation). This shift has a radical impact on the way decisions are made. Individuals earn the authority to take action through the manner in which they frame the issue. They form consensus and get decisions made by focusing relentlessly on indisputable facts that they and their peers derive from the gemba.

However, for leaders to refrain—as much as possible—from dictating does *not* mean laissez-faire disengagement. As we shall see, the Toyota leader engages in the messy details of the work being done in order to learn and become thoroughly knowledgeable about the process at hand. Questioning, coaching, and teaching take precedence over commanding and controlling. That’s why Toyota pioneer Taiichi Ohno believed that one could learn what’s important about an operation by simply standing and observing it from one fixed location. Where the laissez-faire, hands-off manager will content himself to set targets and delegate everything, essentially saying, “I don’t care how you do it, as long as you get the results,” the Toyota manager desperately wants to know how you’ll do it, saying, “I want to hear everything about your thinking, tell me about your plans.” Only then can the manager mentor the problem-solver.

Therefore decision-making and actions are interwoven with planning and problem-solving. The manager’s job is to see problems, and he can only do so by knowing every messy detail of the work being done—the A3s of those working with him contain these facts. It is assumed that there will be problems, and that nothing will go according to plan. That’s why Toyota managers are known to say, “No problem is problem.” This recognizes that it is the very job of all managers—even all employees—to see and
respond to the problems that are there, the problems that we know must be there. By successfully incorporating the A3 into team activities, companies will not only learn to stop avoiding problems, they will begin to recognize problems as powerful opportunities for learning and for improvement.

Unlike traditional command-and-control leaders who rely on the authority of their position to instruct others how to deploy strategy, the Toyota leader is concerned more with responsibility. The Toyota leader will strive whenever possible to eschew simple command in favor of leading by being knowledgeable, fact-based, and strong-willed yet flexible; in other words, by being a true leader.

But, just as this leader eschews command and control, he also embraces a style and process that contrasts equally with the laissez-faire, hands-off approach of the supposedly enlightened modern manager. This is a stark contrast to the results-only-oriented, management-by-numbers approach—often couched in the misleading terms of “management by objectives”—that is employed by many conventional managers. As H. Thomas Johnson noted, whereas the traditional manager tries to manage by manipulating results—something akin to driving while looking in the rearview mirror—Toyota managers manage the means, the process itself that actually leads to results.

As a result, Toyota management can best be understood as neither “top-down” nor “bottom-up.” The A3 process clarifies responsibility by placing ownership squarely on the shoulders of the author-owner of the A3, the individual whose initials appear in the upper right-hand corner of the paper. This person may not have direct authority over every aspect of the proposal. Yet this owner is clearly identified as the person who has taken or accepted responsibility to get decisions made and implemented.

While it would be an overstatement to say that the entire Toyota management system boils down to this one method (not every Toyota manager exhibits all these characteristics all the time), it’s fair to say that effective use of the A3 can embody the extraordinary management thinking that has made Toyota what it is.

At Toyota, there was never a stated goal to “implement the A3 process.” Rather, the A3 emerged as the method through which it could yoke two important work management processes: hoshin kanri (strategy management) and problem-solving. At the macro enterprise level, hoshin kanri aligns organizational goals and objectives with operations and activities, while at the micro, or individual level, formalized problem-solving creates operational learning. The A3 process combines and embodies both. As a result, companies that seek a disciplined hoshin kanri process and an effective problem-solving process will find tremendous challenge and opportunity in embracing the A3 process.

At companies on a lean journey, individuals at every level can use A3s as a way to propose projects, take initiative, show ownership, sell ideas, gain agreement, and learn. Managers can use A3 thinking to coach and teach; to assign clear responsibility, ownership, and accountability; to get good plans from subordinates; and to mentor employees. And organizations can use A3 thinking to get decisions made, to achieve objectives and get things done, to align people and teams along common goals, and, above all, to learn for effectiveness, efficiency, and improvement. A3 works as both a problem-solving tool and as a structured process for creating problem-solvers. The A3 helps spread a scientific method that forces individuals to observe reality, present data, propose a working countermeasure designed to achieve the stated goal, and follow up with a process of checking and adjusting for actual results.

This Book
You’re holding a book within a book: one to share the fundamentals of the tool, and a second to share the underlying learning process.

The core story shares how young manager Desi Porter, who is versed in lean basics, discovers the content and meaning of the A3 process. As he learns, you will become familiar with some typical formal elements of an A3 proposal and its applications. Porter’s story appears on the left side of each page in black text. The story of Porter’s A3 education is deeply informed by its counterpart, which reveals the thinking behind the actions and insights of his supervisor, Ken Sanderson, as he mentors our protagonist through the learning process. Sanderson’s story appears in blue text on the right side of the page.

Mentor Sanderson seeks to apply this broader approach to his own set of problems and decisions. He understands that the A3 process illustrates the means to build robust, sensible systems and processes that cascade responsibility throughout the organization. The intent is to embed organizational habits, practices, and mindsets that enable, encourage, and teach people to think and to take initiative. The system is based on building structured opportunities for people to learn in the manner that comes most naturally to them: through experience, learning from mistakes, and plan-based trial and error.

So the goals for this book are both modest and ambitious.

In this book, you will learn how to write an A3 proposal. Writing an A3 is the first step toward learning to use the A3 process, toward learning to learn. Some benefits in improved problem-solving, decision-making, and communications ability can be expected when individual A3 authors adopt this approach. But unless the broader
organization embraces the broader process, the much greater benefit will be unrealized. The entire effort may degenerate into a “check-the-box” exercise, as A3s will join unused SPC charts, ignored standardized work forms, and disregarded value-stream maps as corporate wallpaper.

Every organization I know struggles to incorporate and sustain successful operations along these principles. The A3 is but a tool in a broader system. My hope is that by applying the practices of both the core story and its management perspectives that managers and supervisors can improve their lean learning and leadership. The real questions that should precede your reading of this book are, “How do you want to manage? How do you want to lead?”

If you want to manage and lead in ways that build robust systems and processes that cascade responsibility and learning throughout the organization, then the A3 management style and process—not just the A3 piece of paper—will help you do so.

John Shook
Ann Arbor, MI, USA
October 2008

The lean leader’s job is to develop people. If the worker hasn’t learned, the teacher hasn’t taught.²

The term “A3” refers to an international-size piece of paper, one that is approximately 11-by-17 inches. Within Toyota and other lean companies, the term means much more.

Toyota’s insight many years ago was that every issue an organization faces can and should be captured on a single sheet of paper. This enables everyone touching the issue to see through the same lens. While the basic thinking for an A3 (see pages 8–9) follows a common logic, the precise format and wording are flexible, and most organizations tweak the design to fit their unique requirements.

The A3 is like a résumé that can be adapted in layout, style, and emphasis according to the person seeking the job and the type of job being sought. Practitioners can adapt the format to fit the requirements of each situation.

On a single page, an A3 typically includes the following elements:

- **Title**—Names the problem, theme, or issue.
- **Owner/Date**—Identifies who “owns” the problem or issue and the date of the latest revision.
- **Background**—Establishes the business context and importance of the issue.
- **Current Conditions**—Describes what is currently known about the problem or issue.
- **Goals/Targets**—Identifies the desired outcome.
- **Analysis**—Analyzes the situation and the underlying causes that have created the gap between the current situation and the desired outcome.
- **Proposed Countermeasures**—Proposes some corrective actions or countermeasures to address the problem, close the gap, or reach a goal.
- **Plan**—Prescribes an action plan of who will do what when in order to reach the goal.
- **Followup**—Creates a followup review/learning process and anticipates remaining issues.
Title: What you are talking about?

I. Background

Why are you talking about it?

II. Current Conditions

Where do things stand today?

- Show visually using charts, graphs, drawings, maps, etc.

What is the problem?

III. Goals/Targets

What specific outcomes are required?

IV. Analysis

What is the root cause(s) of the problem?

- Choose the simplest problem-analysis tool that clearly shows the cause-and-effect relationship.

Source: John Shook and David Verble
V. Proposed Countermeasures

What is your proposal to reach the future state, the target condition?

How will your recommended countermeasures affect the root cause to achieve the target?

VI. Plan

What activities will be required for implementation and who will be responsible for what and when?

What are the indicators of performance or progress?

- Incorporate a Gantt chart or similar diagram that shows actions/outcomes, timeline, and responsibilities. May include details on specific means of implementation.

VII. Followup

What issues can be anticipated?

- Ensure ongoing PDCA.
- Capture and share learning.
These A3 elements follow one another in a natural and logical sequence. The links among the problem, its root causes, the goal, the actions proposed to achieve the goal, and the means of judging success are clear and easy to understand.

The format and the goals of the A3 are guided by the following set of questions:

1. What is the problem or issue?
2. Who owns the problem?
3. What are the root causes of the problem?
4. What are some possible countermeasures?
5. How will you decide which countermeasures to propose?
6. How will you get agreement from everyone concerned?
7. What is your implementation plan—who, what, when, where, how?
8. How will you know if your countermeasures work?
9. What followup issues can you anticipate? What problems may occur during implementation?
10. How will you capture and share the learning?

It can’t be stressed enough that there’s no one fixed, correct template for an A3. To illustrate this point, the back pocket of this book contains several A3 examples illustrating some of the problems, proposals, decisions, projects, plans, and issues they can address. The author decides what to emphasize depending on the specific situation and context. It is not the format of the report that matters, but the underlying thinking that leads the participants through a cycle of PDCA (plan, do, check, act).

As you will read in the coming pages, completing and then discussing the material in an A3 forces individuals to observe reality, present facts, propose working countermeasures designed to achieve the stated goal, gain agreement, and follow up with a process of checking and adjusting for actual results. As a result, the A3 represents a powerful tool for problem-solving, making improvements, and getting things done.
But more than that, the A3 is a visual manifestation of a problem-solving thought process involving continual dialogue between the owner of an issue and others in an organization. It is a foundational management process that enables and encourages learning through the scientific method. A3 reports should become a standardized form of currency for problem-solving, dialogue, and decision-making in your organization—creating an organization of scientists who continually improve operations and results through constant learning from the work at hand.

To help make that happen, the nuances of A3 as a problem-solving or improvement tool and a management process will be explored in the coming chapters. Together we will move through the sequence of the A3 process. In doing so, we'll see that significant work can lead to significant organizational reward.

Learning to Converse—How to Read the Following Chapters

The following five chapters have an unusual structure. Just as real dialogue in the real world is a dynamic exchange between (at least) two individuals, you will find two conversants represented in two parallel columns. On the left in black text is the main storyline and dialogue as experienced through the perspective of Desi Porter, a young manager struggling with a new assignment. On the right side in blue text, you will find running commentary that reflects the thinking of Porter’s boss, Ken Sanderson, as he endeavors to mentor his young charge through the A3 learning journey.

The perspectives of Porter and Sanderson are shared side-by-side to illustrate the natural tension that characterizes any work relationship and situation. Through Porter and Sanderson’s ongoing dialogue, you will see how the A3 is an emerging reflection of the conversation that it both creates and is created by.

You may choose to read the left column first and follow it through to the end of each subchapter, and then go back and read the right column. Conversely, you may read them almost at the same time, switching back and forth, dynamically—like a real conversation. Try both ways—choose whichever fits you best. Eventually you will find a rhythm that brings the dialogue of Porter and Sanderson and their learnings to life.
Chapter 2
Grasp the Situation—Go to the Gemba

Acme Manufacturing is the U.S. subsidiary of a midsized Japanese manufacturing company. Five years ago the parent company launched its initial U.S. investment with the launch of its largest overseas factory. A current expansion plan for that plant is projected to double capacity and extend product lines. The expansion also will nearly double the size of the production organization.

At the U.S. Acme site, manager Ken Sanderson has assigned middle manager Desi Porter the project of improving the document-translation process for the expansion. This translation process was fraught with problems during the plant’s startup, and, now with Sanderson’s mentoring, Porter has been charged with bringing such problems to light and proposing ways to improve the process. This seems simple enough, but for many companies, with the exception of those like Toyota, looking for problems is counter to corporate culture.

“For Americans and anyone, it can be a shock to the system to be actually expected to make problems visible,” said Ms. Newton, a 38-year-old Indiana native who joined Toyota 15 years ago and works at North American headquarters in Erlanger, Ky. “Other corporate environments tend to hide problems from bosses.”

Desi Porter: What Is the Problem?

Desi Porter, a recently appointed middle manager of Acme Manufacturing, had a problem.

He stared at the blank piece of paper in front of him. He thought he knew what to do about the assignment he had just been given. But what was he really supposed to do with this piece of paper?

The assignment had been handed to him by his boss, Ken Sanderson: “Desi, the plant expansion will require a significant amount of documentation from our mother plant in Japan. Those documents will all need to be translated on-time, within budget, and with perfect quality in order to support a successful launch. I need you to look at our current translation process, evaluate it, and make a recommendation. You know the overall expansion timeline. This is very important for the company. Please prepare a preliminary A3 and bring it to me for discussion.”

Porter was new to his role as junior manager of administration, but he had worked long enough within Acme’s lean system to understand that a commonly accepted way of tackling problems and making proposals did exist—the A3. He had seen many A3s in his previous assignments and had, in fact, created a few simple problem-solving A3s. The format in those cases was pretty straightforward.

Porter remembered hearing one training specialist refer to A3s as “storyboards,” indicating that there was a story told through a highly standardized format of panels or boxes with subject headings. Sometimes these were drawn on an 11-by-17-inch sheet of paper like he was staring at now. At other times they were large presentation panels.

Ken Sanderson: The Means to Manage

Ken Sanderson, Desi Porter’s manager, had many problems.

The document translation process was just one of them. Among other things, he was responsible for reducing overall costs by 10%; improving safety in the wake of a major accident; hitting startup quality and volume numbers for the expansion; as well as addressing the many concerns that invariably arise regularly from below (the shopfloor) and above (senior leadership). On any day, people and problems were coming at him from all directions.

Sanderson had been supervising a staff of 10 direct-reports in charge of various shared services, such as purchasing and training, when he received the assignment to lead the new expansion project. The project would consume two years and $250 million, and he was gradually feeling overwhelmed. Now, with only a little more than a year to go before launch, his numerous responsibilities were growing, often without commensurate funding, he fretted, to support them.

Tight cost expectations, stringent requirements for quality, and an extremely tight timeline for the product launch were front and center. But Sanderson knew that Acme was not a
Porter knew his new assignment meant he had been given ownership of a problem, and he needed to develop a proposal. This particular problem was tied to the addition of manufacturing capacity, which would entail the construction of a new building, installation of new equipment, and hiring and training of new employees. While the expansion was great news (it confirmed that the company was doing well), the development also would create new challenges. The many difficulties of the original plant startup were still fresh in everyone’s mind. One of these problems was an almost invisible but troublesome issue: translating a mountain of documents from Japanese to English.

As Porter researched the translation process, he realized that translating the documents was a huge project with complex technical requirements. It was far more complex and difficult than he had realized. The documents to be translated covered everything from the sourcing of specific parts to equipment specifications to shipping and packaging requirements. They contained highly technical terms and local idiomatic phrases, not to mention symbols and charts that were often complex and needed to be physically incorporated into the documents. Translating them quickly and accurately was essential for the plant to operate effectively at startup.

This was a complex project that touched many different operations and functions, even cultural differences. With so many requirements on so many levels, Porter wondered how he could propose the right solution.

He had read through an array of A3s that had been used in the plant for a variety of problems: reducing injuries from handling sheet metal, company to let budget estimates, which after all are just estimates, become the tail that wags the dog. Acme was extremely cost-conscious, but at the same time didn’t fall into the trap of trying to manage by the numbers. He needed to do everything possible to control and even lower cost.

Document translation had been a back-burner issue that no one had turned serious attention to until recently. Sanderson knew that the translation process, like many others, needed to support the launch effectively by providing required levels of quality in the required time. If he could get the process to be dependable, the rest would take care of itself.

Most of Sanderson’s staff had enough background in basic lean principles and tools to understand how they worked. Yet, like Porter, they often lacked enough direct experience in daily operations to see how the tools fit into a broader lean management system. And every lean skill developed from a learn-through-doing process, requiring direct, hands-on experience.

The expansion project could give many of his staff that experience. Sanderson needed to develop the thinking of Porter and the others. In doing so, he would develop many sets of skilled eyes and hands to support his role as a manager and leader.
producing more orderly workstations, fixing technical problems in engineering, improving invoicing and accounts receivables, and improving the customer call center in the front office. Surely this approach could help with the problem at hand.

And so, with a little knowledge, Porter earnestly began his A3 to address the document translation problem.

And so, with a mixture of trepidation and confidence, Sanderson had determined to assign this important project to Porter and mentor him to success.

**Standardized Storytelling**

An A3 should tell a story that anyone can understand, following it from the upper left-hand side to the lower-right side of the paper. The reports don’t merely state a goal or define a problem in a static or isolated manner. Like any narrative tale, an A3 shares a complete story. There is a beginning, a middle, and an end, in which the specific elements are linked, sequential, and causal. That’s why a complete A3 traces a journey from the context and definition to its “resolution,” which usually prompts a sequel.

One way to describe the A3 is as “standardized storytelling,” which refers to the ability of A3s to communicate both facts and meaning in a commonly understood format. Because readers are familiar with the format (a story), they can focus easily on the matter contained within as the basis for dialogue. A story is more than lifeless data to prove a point. It brings the facts and the total reality of the condition to life so the reader can understand and debate the true nature of the situation.
Not So Fast

Porter wanted to show Sanderson that he could quickly produce a quality A3 that solved the problem of translating technical documents. He wanted to complete an A3 that would get approved right away and get his solution into action.

Porter considered the basic questions and drew a template on the paper. He knew the typical A3 setup and had heard A3 proposals referred to as “standardized storytelling” (see sidebar on p. 16). So he tried thinking of his story, starting with the Title or theme. The Title should describe the specific problem being addressed and answer the basic question: What does the A3 owner want to talk about, to propose?

One of Porter’s colleagues had shared this piece of A3 advice: “The Title is more than just a descriptive label. That’s because articulating the right theme will force you to describe the real problem. Seeing the right problem and defining it accurately is the key to the entire process. You may not start with the right theme, but you will begin the conversation that gets you there.”

What was the real problem that Porter needed to address? Across the top of the page he wrote, Create robust process for translating documents.

Porter considered the next section, the Background to this problem. He knew that in this first blank box he should provide the underlying conditions for the report, describing the need for the problem to be solved. Why am I posing this problem? What is the broader business context of the issue?

Producing People before Products

Sanderson knew that his own proficiency at putting out fires wouldn’t grow his employees, produce valuable learning, or make his life any easier. Indeed, the better he got at quickly patching up a problem, the more long-term goals would elude Acme.

Sanderson needed to develop proficient problem-solvers. This meant individuals who were comfortable with a scientific approach to work, who took ownership and responsibility for their work, and who would one day have enough mastery to teach these principles to their subordinates. And he needed to make this happen without forcing it to happen. That meant there would be some mistakes along the way, but mistakes that would lead to learning.

Sanderson needed Porter and others to learn how to learn. The A3 would help this happen. For Sanderson, A3 represented a management process to develop learning among employees in addition to being the tool that would help Porter propose countermeasures to his specific document-translation problem.

Improving the document-translation process had not originally been high on Sanderson’s radar screen. Other things, such as safety or quality, always seemed more urgent.
He knew that problems with translated Japanese documents had created numerous headaches for the plant in the past. They often arrived late and contained errors due to the complexity of translating both language and technical details. The activity was always over budget. And the problems caused by the delays and the missing information cascaded into major delays at the start of production—an unacceptable condition to allow to continue at a company like Acme.

He considered whether he could fix it by simply improving the way things were handled at the moment. Couldn’t people just do their jobs better?

Porter knew that cost pressures were increasing on the company in general and that the launch plan included requirements for cost reductions in all activities. A deep dive into the cost structure of the document-translation process seemed like a good place to start, so Porter spoke with Frances, the procurement specialist in charge of purchasing indirect services such as translation.

Frances told Porter that she had been concerned about the substantial difference in the pricing of the three main translation vendors for some time. Porter prodded her for more information. As they explored this topic further, Frances looked through her files, and together they realized that the vendors had never been through a full competitive bid process. Porter was excited by this discovery, which led him to what he considered the obvious answer: implement a competitive bid process to select the best and lowest-cost vendor.

Porter immediately returned to his A3. In the box marked Background, he wrote, “New domestic plant expansion has massive technical

Document translation, which was always occurring to some degree throughout Acme, was one of myriad hidden activities that only received attention when there were problems. But now Sanderson recalled just how problem-rich document translation had been during the original plant launch. At that time the process ran at least 10% over budget, was habitually late, and caused delays and quality problems in production.

The combined importance and messiness of the translation process prompted Sanderson to cautiously consider Porter’s responsibilities for the expansion. He felt confident that with coaching Porter would be able to get the job done and prevent a repeat of problems in the translation process. Furthermore, Sanderson reasoned that tackling this messy problem could be a great developmental opportunity for Porter.

Porter had been successful in most of his assignments so far. But he had no experience with such a cross-functional administrative process, and had shown a hesitancy to take action when he was in unfamiliar territory. His performance appraisal history showed that he seemed to like certainty and was uncomfortable in new situations.
requirements that must be translated from Japanese documents. The size and complexity of the project are creating errors and delays.”

He then worked quickly through the other sections of his A3 template:

- **Goals/Targets**: Reduce cost by 10%. Reduce problems to manageable rate and simplify processes.
- **Analysis**: Challenge of translating from Japanese to English. Complexity and amount of documents. Problems stemming from multiple vendors.
- **Proposed Countermeasures**: Simplify and improve process performance by choosing one vendor based on competitive bid process.
- **Plan**: Evaluate current vendors. Identify new vendor candidates. Develop bid package, distribute, and choose winning bid.
- **Followup**: Monitor cost to proposal. Review performance at end of one-year contract. Put contract up for bid again if performance goals are not met.

Porter looked it over, pleased, and then took his A3 to Sanderson for approval. His boss was out on the shopfloor, so Porter left the report on his desk.

Sanderson believed that Porter would be able to work his way through the mechanical aspects of the translation problems. His natural people skills also would help him engage a very diverse mix of individuals and groups. However, he would need to stretch himself to learn how to handle more organizational complexity and uncertainty than he had experienced before.

Sanderson knew that assigning this responsibility to Porter meant that he was also assigning responsibility to himself to coach Porter through it.
**Whose Problem Is This?**

Sanderson returned to find Porter leaving an A3 on his desk. He walked over, picked it up, took a glance at the paper, and looked over to Porter.

“That was quick,” Sanderson said.

“Thank you,” replied Porter, unsure of Sanderson’s intent.

“That wasn’t a compliment but an observation. So you’ve been able to confirm the problem and define a plan of action?” Sanderson asked, handing the A3 back to Porter. “This is your A3, right?”

Porter realized he hadn’t signed the report, but resisted the impulse to initial it and hand it right back to Sanderson. It had seemed trivial to him before, but he remembered that every report included the initials of the owner of the A3: *Clear indication of ownership is important so everyone involved can know precisely who is taking responsibility for the problem or proposal.*

Without a word, Porter took the A3 and returned to his desk. He pulled out a file of A3s prepared by other Acme managers. He noticed that each A3 included an initial and date. But more importantly, they seemed to share a common quality. Most were rough, erased, scribbled over as a result of people making many iterative changes. He was beginning to understand: *The A3 owner indicates the draft date because A3s continually evolve and improve in the course of their use. Readers need to know that they are looking at the current version, and can chart the progress of an A3.*

Porter looked up to see Sanderson standing in front of him.

**Beginner’s Mind**

Sanderson appreciated Porter’s enthusiastic effort to solve the problem quickly and cost-effectively. Yet he knew that this first zealous rush to own a solution was certain to bar a full investigation of what was going on and prevent a thorough exploration of the best approach to the problem.

He needed to help Porter avoid simply being “right,” jumping to a solution, or attaching himself to one course of action. So he focused his work with Porter on coaching his attitude and expectations as much as his method.

Porter needed careful coaching at this stage in his learning process to maintain what some refer to as “a beginner’s mind,” an openness to many possibilities. Porter needed to look at the document-translation process with an open mind in order to see many possibilities rather than focusing only on a limited set of choices.
“Please take your time,” Sanderson encouraged him. “I’m not asking you to neatly fill in all the blanks. The point is to think about the content. Reflect on what the problem really is. Why is it important? How does it tie into what we are trying to accomplish? Don’t even worry about the plan of action yet. How could you complete a plan of action when you haven’t even confirmed whether there is a problem and, if so, what the problem is?”

Sanderson left. Believing his initial ideas were essentially right, Porter initialed the report, added the date, and left it on Sanderson’s desk (see pages 22–23).
Create Robust Process for Translating Documents

I. Background
New domestic plant expansion has massive technical requirements that must be translated from Japanese documents to English. The size and complexity of the project are creating errors and delays.

II. Current Conditions
Cost overruns, delays, and errors due to:
• Sheer volume of documents.
• Multiple and varied vendors (pricing, quality, ease).
• Involvement of various departments and working styles.

III. Goals/Targets
• Simplify and standardize the process.
• Reduce costs by 10%.

IV. Analysis
• Challenge of translating from Japanese to English.
• Multiple varied vendors create a complex, nonstandard process.
• Overall improvement can be defined by reduction in cost overruns.

“Massive?” How big or important is this problem?

How much?
How long?
How many?

Why 10%?

What do “challenge” and “complex” mean? What “problems” and what “cause?”

Is this the issue?
V. Proposed Countermeasures

Simplify and improve process performance by choosing one vendor based on competitive bid process.

VI. Plan

Evaluate current vendor.
Identify new vendor candidates.
Develop bid package, distribute, and choose winning bid.

VII. Followup

Monitor cost to proposal.
Review performance at end of one-year contract.
Put contract up for bid again if performance goals are not met.

What does the number of vendors have to do with the problems?

How can we know any of this will work when we do not even know the problem or root cause?
How Do You Really Know What the Problem Is?

Sanderson had studied the “revised” A3 from Porter. “OK, before we talk about the specifics of your proposal, let’s talk about the problem. What exactly is the problem you are trying to address?”

“The costs are too high, the process is too slow, and there are too many errors,” Porter replied warily, pointing to this information on the paper.

“And how do you know that?” asked Sanderson.

“From talking with Frances in Purchasing and others,” answered Porter.

“What else have you discovered?”

“The process is very complex. We have multiple vendors with varying cost and performance.”

“Why?”

“Japanese-to-English translation is very difficult. There is a large volume of work to complete in a short amount of time.”

Sanderson sat back and replied deliberately, “That’s all very general and vague. Do you know how the process actually works? Can you tell me what is causing the problems and delays? What is actually causing the cost overruns?”

“Well, the work gets backed up, and the translators have to work overtime,” said Porter.

“So, the delays cause backlogs, which cause overtime. Good. Now we’re getting somewhere. So then what causes the delays?”

“Well,” Porter said, thinking hard, “I think it’s just the sheer volume of work.”

“Perhaps,” Sanderson said. “Tell me, do you know how the process actually works?”

Questioning Mind

Very neat and tidy; and yet deeply flawed, thought Sanderson as he reviewed Porter’s proposal. He had seen this type of thinking many times before: a rush to judgment in order to quickly be right.

The biggest flaw with Porter’s initial A3, and the underlying thinking behind it, was that he had jumped to a conclusion about the problem, about what had caused it, and what to do about it. This type of thinking was prevalent among Acme’s young managers, and it troubled Sanderson. He had seen too much of it—good people wanting to get work done, jumping to conclusions, and applying poor fixes that are doomed to fail over the long-term.

Sanderson knew that simply showing Porter his error would not necessarily lead him to “get it.” He reflected on a key lesson he had discovered: Avoid telling your people exactly what to do. Whenever you tell them what to do you take the responsibility away from them. He understood the essence of leadership is getting individuals to take initiative to continually improve on their own. He could help Porter by getting him to explore the “why” of the situation while making it clear that Porter was the one to work the “how.”

That’s why his first action had been to get Porter to accept ownership of the problem. Getting him to write his
“Well, the documents originate from our Japanese production shops. They are sent to one of three translators, who perform their work and then send them to the appropriate person in the appropriate shop,” said Porter.

“And how do you know this?” Sanderson asked.

“I read through some documents from the initial plant startup,” Porter said. “And I based my plans on what I knew and what I had heard around the plant. And I talked with Frances in procurement.”

“I see,” Sanderson said. “How can you tell how well this is working? What performance criteria are you using?”

“I see you’ve looked at cost,” Sanderson continued. “What about quality? Does the vendor with the highest quality have the same lead time as the others?”

“I don’t know,” replied Porter, surprised that Sanderson seemed to understand the nuances of the overall process as well or better than he did.

“And are some of the vendors easier to work with?” Sanderson asked. “Does that affect the quality of the work? And is the quality of the text translation different than that of the charts and graphs? Are there particular cultural challenges, such as the use of idioms that crop up in particular documents and require special attention? Do all the forms go through the same steps? Do they require different types of translators?”

“I don’t know,” was all Porter could say repeatedly. He realized that he had filled in all the boxes of his A3 form, but his approach was essentially worthless. He was surprised to find that his boss knew so much about the situation.

initials on the A3 was just a first (and largely symbolic) step to encourage Porter to take initiative for the entire process. Sanderson was tempted to go further but stopped himself. He had a clear idea of what he wanted Porter to do, but directing him too much would prevent Porter from thinking for himself and learning the key lesson of taking ownership.

Prior to his second conversation with Porter, Sanderson recalibrated his approach. He spent time studying Porter’s A3. He walked around the plant, and talked with individuals in his plant and other company plants. He was mindful of finding a way to help Porter find his own answers. He needed to do some research, not to solve the problem himself, but enough to know how to help Porter dig deeper and become a better problem-solver.

Sanderson wanted to help Porter avoid what experienced lean thinkers consider one of the gravest errors: appearing to know something concrete about a situation without having precise, direct knowledge.

He could lead Porter best through influence rather than instruction. This meant getting into the messy details and coaching him through the learning cycles of the work at hand. He avoided the temptation to share preachy homilies about work. He had learned from his Acme experience that the
This attention to detail made it clear to Porter that he needed to go see the nature of the actual problem, rather than applying a quick fix without understanding what had created the problems in the first place.

Porter was beginning to see that the first job when solving the problem was discovering precisely what the problem really was. Writing out a description of what he had been told was insufficient. In order to address a problem, he would need to determine what had created the problem in the first place. Simply producing an A3 wasn’t a sign that he had finished his job; in fact, he saw that his work had merely just begun. He needed to go to the gemba.

most effective leaders earned worker loyalty through a careful “operator-out” approach. Leaders earned their stripes by building effective ways of work from the ground-up. They helped individuals see their work, thereby creating opportunities to remove wasteful steps. Helping people create more value on their own represented one of the highest forms of respect. Those individuals who were able to generate this type of constant improvement were the most natural and effective leaders.
Gemba Is More than a Place

Gemba (also spelled “genba” with an n) is the Japanese term for “actual place,” and describes the place where value-creating work happens. While lean practitioners often use the term to describe the shopfloor in manufacturing, gemba describes any setting in which individuals are creating value for a customer. It can refer to office settings, service settings, a hospital ward, or the shopfloor—anywhere that work takes place.

Real improvement only can take place when there is a front-line focus based on direct observation of current conditions where work is done. Toyota calls this principle, genchi genbutsu shugi, meaning the “principle of the real place and real thing.” For example, standardized work for a worker on a factory floor cannot be created at a desk in the engineering office; it must be defined and revised at the gemba:

“Of course, data is important at any gemba. But I place the greatest importance on facts or the ‘truth.’ For example, when a problem occurs, if our identification of the root cause is even slightly incorrect, then our countermeasure also will be completely out of focus. That is why we use the Five Whys repeatedly and thoroughly. And that attitude is the basis of Toyota’s scientific method.”

In essence, gemba reflects a philosophy of empiricism—go to the gemba to discover the truth.

Going to the Gemba

After his meeting with Sanderson, Porter spent the morning poring over the various types of translated documents that were used in the plant. As he looked for patterns and sought ways to apply an overall fix, such as a standard form for all procedures, he was struck by the sheer variety of the forms. There was a tremendous volume of documents with a great deal of technical detail. And the process to handle it all was chaotic.

He was surprised to discover that there was no single person who knew how the entire process worked. Each department handled its own documents independently—and differently. Porter made an effort to find a key person in each area.

After considerable legwork, Porter pulled together a group of people throughout the plant who could help him see the entire process. He visited them individually, gathering facts and getting ideas. But he still needed to learn more about the actual document-translation process.

Porter paid a visit to Acme’s Information Technology (IT) Department. In a heavily air-conditioned control room with no windows, Porter found two technicians, Rick and Terry, who maintained the IT system that handled the substantial data transfer that took place between Acme and its headquarters in Japan. Rick and Terry had been handling this responsibility for Acme since the beginning of operations in the United States, so they knew all the problems that had occurred over the years. Whenever a problem occurred with data transfer, whether corrupt files or printing problems, everyone in the plant knew to go to Rick and Terry.

Gemba Mind

Sanderson remembered a slogan he had heard from his first supervisor at Acme: *If the learner hasn’t learned, the teacher hasn’t taught.* He was trying to teach Porter and others how to learn a specific, dynamic way of thinking that makes employees learn by doing, by understanding the situation through grasping the reality of the gemba. Ideally this meant teaching on the shopfloor, in the office, or at the shipping dock rather than holding formal training meetings.

He needed to use the process of fixing problems as a way of teaching a new way of thinking. (Sanderson had learned that the Japanese mentors who taught him the learner/teacher slogan had previously learned it from their American mentors decades before.)

Sanderson also needed to encourage individuals to articulate and then share their problems. He wanted them to explain how they intended to address them. The A3 format would help by providing a platform to elicit their thoughts about the problem and their approach. And it created a way to communicate back and forth to evolve and deepen understanding.

The methodical nature of the A3 mentoring required Sanderson to be patient in his dealings with Porter—to

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During the plant startup they were quite involved in the document-translation issue. Not surprisingly, common technical problems that occurred in the data-transfer process showed up in the translated documents as well. One common problem was that technical documents would fail to print properly.

Whenever that happened, everyone screamed for Rick and Terry, who would figure out how to get them printed. Because of this they had many opportunities to view the various translated documents from the various departments. They knew the comings and goings of the documents, the volume, the problems, the users, and their difficulties. For Porter they became a gold mine of information.

For Rick and Terry, the document-translation process was just a side job, but a big headache for them when things went wrong. When all went well, they got no reward; when problems cropped up, they cleaned up the mess.

The duo naturally looked ahead with trepidation to the deluge of new document-translation needs. And they were wary when Porter showed up, but gradually warmed to him, happy to have someone to listen to their problems.

Porter listened to their woes and war stories, frequently pulling the conversation back to document translation. He thanked them for their input, and asked, “Is there anything else you think I need to know?”

“Well, most of the documents involved the Engineering Department,” Rick offered.

This confirmed what Porter had learned from Frances’ accounting records and worked into a pie chart. Engineering had the greatest volume of documents to be translated.
“Yes, but most of the headaches come from manufacturing operations,” Terry added.

Porter described the idea he and Frances had developed, that of putting the process up for competitive bid and choosing the one best vendor.

“Sure. And we know the one to choose,” said Rick, with Terry agreeing.

Porter took furious notes as Rick and Terry recommended the vendor that caused them the fewest headaches. After thanking them again for their help, Porter gathered up the forms and went to confer with Sanderson about what he had discovered, excited about his solution of a competitive bid to choose one vendor.

“I’m glad to see you’ve got a better handle on the overall process,” Sanderson replied. “What about the actual work?”

Indeed, his timeline reflected these interconnected demands. Much effort had gone into putting it together and the result was a time-driven plan with the activities and objectives of numerous organizations intertwined, mutually dependent on the others to keep pace by performing and delivering their piece of the puzzle.

A problem is any performance other than desired performance at any given time.
“The actual work?” Porter asked.

“Yes, the actual translation work. Do you know why the performance of the three vendors varies so much?”

“No. I could hazard some guesses. But does it really matter?”

Sanderson looked at him, “You want to understand the problem, right?”

“Got it—back to the gemba.”

Porter took his investigation to the translation vendors. He discovered that the translators were just as frustrated as anyone else. The challenges they faced were significant. Many of the Japanese documents they received were illegible. They often spent more time getting the originals into readable form than doing the actual translation.

The documents included many drawings and charts that were difficult to translate and recreate faithfully. And there were many idioms, colloquialisms, and abbreviations unique to the company and that varied from jobsite to jobsite, and even job to job.

He found that there were three basic types of documents to be translated:

1. Office documents, such as policies, procedures, and general training materials, that could be translated by a general translator.
2. Technical engineering documents that required an engineering translator.
3. Job instructions: Descriptive documents detailing standard work; these were best done by translators who were close to the gemba.

Sanderson was the expansion launch project manager, but there were many functions and departments over which he had no direct control. He needed to get these groups to march forward together, working mostly separately but still in sync. In particular, product development and sales and marketing were completely out of his oversight or easy sphere of influence; they were dependent on him delivering the production and logistical capability to deliver the right product with the desired quality to the customer on time.

Sanderson had much work ahead.
What’s the Problem?

Or, first, what is a problem? Organizations spend enormous amounts of time and energy debating, exploring, and trying solutions—yet, how often is it clearly asked and answered, “Just what problem are we trying to solve?”

Simply clarifying what we mean when we say “problem” can be powerful. A problem is something that presents itself as a barrier to the organization achieving its goals (a presenting problem or the issue that is presenting itself to you) and in some way relates to the way the work is designed or being done (a problem in the work). To solve the presenting problem or the problem in the work it is helpful to see the relationship between problem-solving and improvement and between improvement and standardized work.

The anatomy of problems and improvement:

**Presenting problems and problems in the work:** A presenting problem is the problem immediately facing you, an actual pain felt by the organization, or a gap between current and desired conditions, such as reduced profits, increased cost, diminished sales, a safety hazard, etc. A problem in the work is any deviation from the standard way of doing things or the regular routine or “kata.” A “kata” typically refers to fundamental martial-arts movements, but can refer to any basic form, routine, or pattern of behavior. Recognizable patterns of behavior and clear expectations make it easy to recognize abnormalities (problems) and also serve as a basis for improvement, setting and attaining higher standards.

**Problems and improvement:** Whether trying to maintain current levels of performance or aiming for new and higher levels, the identification of standards is requisite. As shown in the illustration on page 30, knowledge of the gap between current and desired levels of performance sets the stage for performance improvement.

**Improvement and standardized work:** The central role of standardized work in improvement is one of the most important and underutilized aspects of TPS outside of Toyota. A common misperception of standardization is that it is regimentation or command and control. Not so. The true value of standard work is to serve as the basis for experimentation. Standards are set—as bases of comparison—and are used as baselines for improvement. As long as current standards are as they are, there should be no deviation. However, if someone has a better idea for how to perform his or her own work, that idea is proposed, approved, tried, evaluated against the current standard, and rewarded. Far from regimenting individual work into robotic chores, standardized work can enable individual innovation at every level of the organization. As with traditional Japanese arts where the learner first masters the basic form of the “kata,” mastery of fundamentals of standardized work results in individual innovation being enabled and encouraged.

Understanding any problem is the first step to improvement and, theoretically, resolving it.⁴ Conceptual agreement on what a problem is in general makes it easy to clarify what the problem is in a specific situation. As Charles “Boss” Kettering was known to say, “A problem well stated is a problem half-solved.”⁵

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⁴. See page 65 for a discussion of “Countermeasures vs. Solutions.”
Porter sighed. The more he learned about the problem, the more challenging it became. Prior to going to the gemba, he was armed with some data, hearsay, and ideas derived from his own experiences. Now that he had gone to the gemba, he was certain he could develop a better plan. Even though he wasn’t sure how to fix this whole mess or fully understand why things were so messy, he did, for the first time, feel like he was beginning to see the mess.

Porter thought, *Maybe this is what progress feels like.* Once more he sat at his desk to address the problem. He had gone to the gemba and learned from what he saw. He produced a revised A3 titled, “Deliver perfect translations,” which captured what he had learned from his investigation, no more, filling in only the Background and Current Conditions sections (see page 34).

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**Key Questions**

- Who is responsible for this issue? Who owns the process for addressing the problem (or realizing the opportunity or managing the project)?
- What is the business context? How did you decide to tackle this problem?
- What do you actually know and how do you know it?
- Have you gathered and verified facts—not just data and anecdotes—to clearly understand the current state?
- Have you engaged other people?
- What is the problem? Can you clearly and succinctly define the “presenting problem”—the actual business issue that is being felt?
- Have you gone to the gemba?
I. Background

Acme plant to double capacity!
Much document translation required!

- Poor English translations of Japanese documents caused many problems at original plant startup.
- Expansion plans call for aggressive launch timeline and cost reduction.

Problems in document translation at time of initial plant launch:
- Cost = High
- Delivery = Highly variable
- Quality = Many errors!

Problems in document translation process have not been corrected!

II. Current Conditions

How high? How variable? How many errors?

Deliver Perfect Translations

Document translation problems could impede plant launch!
Don’t get ahead of yourself.