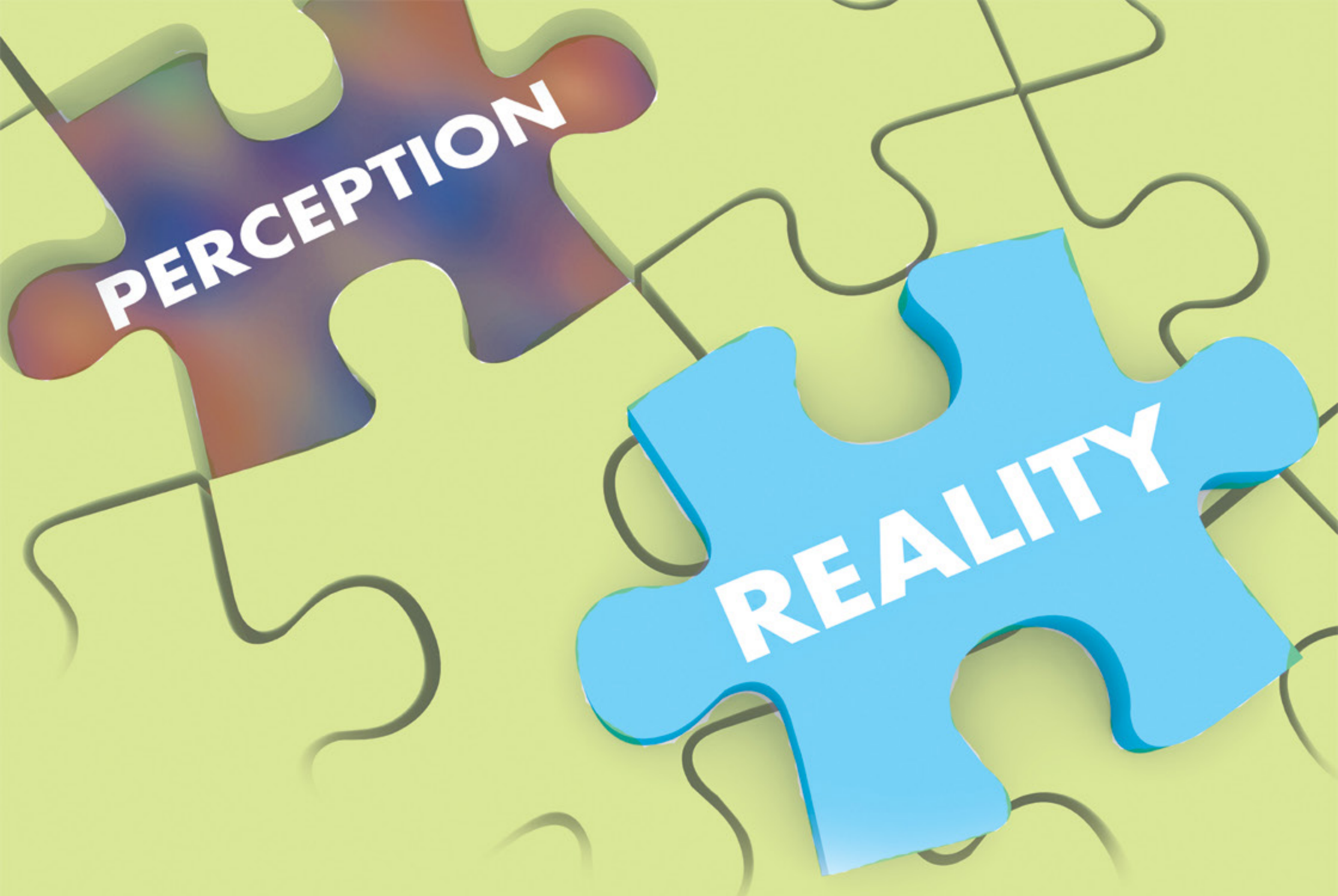

Reality, Perception, and Your Company's Workplace Culture

Creating a New Normal for Problem Solving and Change Management

Daniel T. Bloom SPHR, SSBB

Routledge
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A PRODUCTIVITY PRESS BOOK

Advance Praise

"Daniel T. Bloom does an excellent job in demonstrating the importance of distinguishing what is certain from what is opinion before determining the solution to a problem by telling a believable story that makes the information fun to read."

Terra Vanzant Stern, PhD
Principal of SSD Global Solutions, Lean6 Society and
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The Players

Acme Gyroscope

Richard Jones – Chief Executive Officer. Third generation family member to run the company. Recent college graduate with a Master's in Business Administration.
Robert Ellred – Chief Human Resource Officer
Thomas Edwards – Chief Marketing Officer
Luther Jones – Chief Financial Officer
Arnold Levick – Director of Manufacturing
Raymond Ellis – Shop Foreman
Joanna Jefferson – Shipping Clerk

Morrison Aeronautics

Ann Morrison – Chief Executive Officer
Larry Murphy – Director of Manufacturing
George Thompson – Shop Foreman
Michael Merrick – Chief Human Resource Officer
Sarah Effron – Chief Marketing Officer
Robert Williams – Chief Financial Officer
Samantha Devlin – Shipping Clerk

TD Consulting

Tolan Daniel – President of TD Consulting and the Change Maestro
Julianna Moore – Co-Facilitator for TD Consulting

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About the Author

Daniel T. Bloom is a well-respected author, speaker and HR strategist, who during his career has worked as a contingency executive recruiter, member of the internal HR staff of a Fortune 1000 corporation, an HR Consultant and an HR Consultant and a Corporate Relocation Director for several real estate firms. He is an active participant within the HR social media scene maintaining blogs since 2006 and has written more than 40 articles, which have appeared online and in print; as well as published four books including *Just Get Me There – A Journey through Corporate Relocation; Achieving HR through Six Sigma, Field Guide to Achieving HR Excellence through Six Sigma; The Exceptional Educational System: Using Six Sigma to Transform Schools.* He is a member of the Suncoast HR Management Association; the American Society for Quality and a member of the Six Sigma Black Belt Review Board at St. Petersburg College.

Daniel earned a Bachelor of Arts in Education from Parsons College, Iowa, and his Six Sigma Black Belt training from the Engineering and Technology Program at St. Petersburg College, Florida. He holds certification as a Senior Professional in Human Resources, and as a Six Sigma Black Belt.

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TLS Continuum Acronyms

ASQ	American Society for Quality
BPMS	Business Process Management System
CAP	Change Acceleration Process
CEO	Chief Executive Officer
CFO	Chief Financial Officer
COE	Center of Excellence
COPQ	Cost of Poor Quality
DMAIC	Define-Measure-Analyze-Improve-Control
DSS	Design for Six Sigma
EHS	Environmental, Health and Safety
FMEA	Failure Modes and Effects Analysis
FTE	Full Time Equivalent Employee
GE	General Electric
HR	Human Resources
ISLSS	International Standard for Lean Six Sigma
ISO	International Organization for Standardization
IT	Information Technology
JUSE	Union of Japanese Scientists and Engineers
KPI	Key Performance Indicators
LSS	Lean Six Sigma
MAIC	Measure–Analyze–Improve–Control
NPS	Net Promoter Score
PC	Desktop Computer
PDA	Personal Digital Assistant
QFD	Quality Function Deployment
R&R	Repeatability and Reproducibility
ROI	Return on Investment
SIPOC	Supplier–Input–Process–Output–Client

TLS	Theory of Constraints—Lean Six Sigma
TOC	Theory of Constraints
TPS	Toyota Production System
TQM	Total Quality Management
VOC	Voice of the Customer
VUCA	Volatility, Uncertainty, Chaos, Ambiguity
WIFM	What’s in it for me

Introduction

In 2008 I began a journey that has changed my perspective on the world. It was the journey which led to the completion of my training to earn the Six Sigma Black Belt Certification. That certification initiated a process that resulted in the writing and publishing of three books related to this journey.

In the first book, *Achieving HR Excellence through Six Sigma*, I responded to the challenge that HR professionals are facing every day when they walk through the front door of their work environment. How do I show upper management the value of the human resources tasks to the sustainability of the organization? The concepts were presented by taking an overview of the history of the change management process from the early days in Japan to the present-day operating methodology. I used case studies to show you, the reader, how it applies in real time.

In the second book, *A Field Guide to Achieving HR Excellence through Six Sigma*, I presented a roadmap demonstrating how the HR professional could use the various tools to implement the change management initiatives within the human resource profession, from identifying the stakeholders to mapping out the various processes.

In the third book, *The Excellent Education System: Using Six Sigma to Transform Schools*, I took the same format as we used in *Achieving HR Excellence*, and applied the process to primarily the K–12 classroom and schools. As I did in the first book, I presented case studies of real time application of the concepts to the schools.

What was missing from the three prior works was a demonstrable path from beginning to end of the change management process with its obstacles and its triumphs. In a hybrid model between a business novel and a teaching text, the fourth book in my writing presents that model.

The fourth book, *Reality, Perception and Your Company's Workplace Culture: Creating a New Normal for Problem Solving and Change Management*, looks at Acme Gyroscope, which has been a family owned and run company since its inception nearly a century ago. Up to this point it had been run by the current family member who ruled with an iron hand. The problem is that he recently passed away and his son, who is taking over the company, finds that things are not quite as rosy as he thought they were. The new CEO finds that there is a wide divide between what is believed and what is real.

There are always two groups present in any change management effort. The first sees the problem, feels the problem, and takes real efforts to change the organization. This group understands the organizational supply chain and all its parts. They have a complete understanding of the issues that are causing the customers to be upset with the organization's internal processes.

The second group sees the problem but does not grasp the impact of the problem on the organization. They acknowledge the problem but don't see the gravity of the issue as far as the organization is concerned. These are the organizational components that create problems to problem resolutions.

Join me on this journey through the problems and resolution at Acme Gyroscope and hopefully at the end of the book, not the end of your journey, you will understand the path to sustainable change management in a new light.

Chapter 1

The Crisis

> *I cannot define the real problem; therefore, I suspect no real problem, but I am not sure there's no real problem.*
>
> **—Richard Feynman[1]**

It was a typical Midwest spring morning and the 1500 employees of Acme Gyroscope were reporting for a new day. Among the employees reporting for work was Richard Jones, who was the son of the previous CEO who had just passed away. Being a family owned and operated company for almost a century, the family was very committed to the operations of the organization and the continuity of the family influence.

Richard, prior to his father's passing, had gone off to a prestigious university to earn his Master's in Business Administration (MBA). The family plan was that Richard would bring this new perspective back to Acme Gyroscope and utilize the knowledge and skills as he progressed up the ladder at the firm. Despite the best-laid plans, his father passed away suddenly and the family informed Richard that he was the new chief executive officer.

Richard arrived at the facility at 7:30 am, which was the same time his father and he had always arrived ahead of the rest of the organization. This morning he was a bit apprehensive because he was not sure what he was taking on.

Whenever Richard would ask his father if everything was alright, he received the stock answer that everything was fine, don't worry. "Our clients love us," his father would say. But on his first day something did not feel right. Something was not as his father pictured it. As he looked over the data from reports on his father's desk, some of the numbers did not come up with the same answers his father had told him not that long ago as to how the firm was doing.

As he sat at his desk, his phone rang and his secretary told him that Ann Morrison, the CEO of Morrison Aeronautics and one of their largest clients, was on the phone. After sharing niceties she extended her condolences on the passing of his father, but stated that even though this was not necessarily a great time to bring it up, she was facing a major problem.

Ann explained to Richard that for some time she had been talking to his late father about an apparent decline in the quality of the gyroscopes being delivered to her warehouses. Ann explained that if the delivered gyroscopes were not up to the expected quality it had a direct effect on the end product that her company delivered to the end users. Ann further told Richard that if the problems could not be corrected then she might have to begin the process of seeking out a new vendor for the gyroscopes.

Richard thanked her for calling and as he ended the call he began to wonder why this was the first time he was hearing about the problems with their largest client. Further, he thought what else might be going wrong out there. Richard began to ponder that, obviously from Ann Morrison's point of view, there was a serious problem. From Richard's point of view, based on the information he had, he could not define the real problem; therefore, he suspected there was no real problem. He was not aware of anything that was a real problem for the organization. On the other hand, he was not sure that there was no problem since Ann Morrison felt she had to once more complain that the quality had dropped. He could not let it just get pushed under the rug.

Richard called his secretary into his office and explained he needed to immediately schedule a meeting with the management team due to Ann Morrison's call. The meeting was scheduled for the next day in the boardroom.

Richard decided to walk the factory floor to see if he could observe where the fall in quality was taking place. He remembered from his MBA classes that a Japanese businessman named Taiichi Ohno had created an exercise he called Stand in a Circle (see Table 1.1). It was in this process he had managers stand in one place and for a period of time observe what was going on in the factory to see if they could observe any issues. Richard felt it would not hurt if he tried it at Acme Gyroscope. Unfortunately, his brief time on the factory floor did not produce anything substantial to answer why the problem was happening. Richard determined he would have to wait until the meeting in the morning to try and arrive at an answer.

Table 1.1 Stand in a Circle Worksheet*

	Observation	*Category*	*Costing You*			
			Space	*Time*	*Energy*	*Money*
1						
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28						

* Used with permission from Simplicated http://www.simplicated.com

Richard arrived at his usual time the next morning and proceeded to the boardroom where a short time later he was joined by the management team. The management team in attendance at the meeting included Robert Ellred, the human resources director, Thomas Edwards, the chief marketing officer, Luther Jones, the chief financial officer, and Arnold Levick, the director of manufacturing. In addition, at the last minute, Richard invited Raymond Ellis, the foreman on the factory floor, and Ann Morrison.

Richard began the meeting by thanking them for attending and began the explanation of what led up to the meeting. He then asked for input from those in attendance as to what they had seen lately within the flow of materials that might cause the problem that Ann was experiencing. He then went around the room and let them vent on their feelings in response. The first one to respond was Arnold Levick, who stated he did not understand what the problem was because he had not observed anything dramatically different than what he always observed as he walked through the plant. Nothing appeared to be done at a sub-quality level. As far as he could tell, the company was delivering the same gyroscopes they had for generations.

The second to respond was Raymond Ellis, who stated that in the push to finish orders as requested they sometimes had to cut corners to meet the deadline. He further stated that he did not feel those corners should affect the product as they left the factory. Richard asked Raymond what corners they were cutting in order to meet the order deadlines. Raymond responded that they sometimes delete some of the noncritical steps.

Luther Jones, the CFO, stated that the manufacturing process was running at just about the same Return on Investment established for the manufacturing floor, so he did not think that if there were a problem then he would have to explore the financial impact of any changes. He expressed the view that while the company must meet the needs of its customers it still needs to stay within budgetary constraints in order to keep the business operating.

At this point, Robert Ellred interjected the view that currently the company was close to maximum staffing and if the problem was related to the number of able bodies to complete the work scheduled in order to meet Ann's needs, then he would need authorization to increase staffing levels and to understand the time frame for new hires.

Richard asked if there were any other points of view that would help the discussion. Ann Morrison, the CEO of Morrison Aeronautics, said she had a few things to say. She began by thanking Richard for inviting her to this morning's meeting and stated that over the years her company has always enjoyed working with Acme Gyroscope and the level of willingness of the

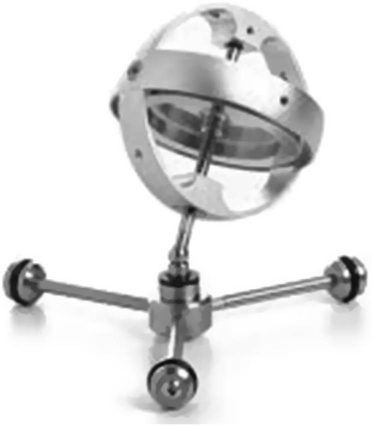

Figure 1.1 A gyroscope.

company to help out with her needs. She then followed up with a question that asked whether everyone understood what a gyroscope does and how it affects her company and its end products.

Thomas Edwards, whose staff is responsible for selling the gyroscopes to organizations like Ann Morrison's company, said it would not hurt the discussion for Ann to explain what gyroscopes were and how she uses them in her delivery of products to end users.

Ann began her explanation of the workings of the gyroscope (see Figure 1.1). Ann explained that a gyroscope consists of a circle containing a flat wheel on an axle. How things work[2] tells us that when we apply a force to the axle the gyroscope moves. Without any explanation the two ends of the axle will move in opposite directions. This causes the gyroscope to spin. If the gyroscope stops spinning the wheel falls over. Newton's First Law of Motion tells us that objects will move in a straight line unless pressure is applied, which creates an unbalanced force. Depending on the amount of pressure applied the gyroscope moves to a new position. Ann went on to explain that the problem that they were experiencing was that the gyroscopes used by their end users assist them in the control of navigation devices and for some reason they stop spinning, which means the navigation systems fail.

Richard thanked Ann for her contributions to the discussion and then asked Raymond Ellis to prepare his work area for a visit by those in attendance. He told Raymond they would be down on the floor in 30 minutes.

The individuals who were in the meeting convened on the factory floor and Richard handed them each a sheet of paper. Richard explained the theory behind the form on the sheet is to assist them in truly observing the manufacturing process and look at what might be the cause of a problem. Richard asked them to take a half an hour to complete the form at which time they would reconvene in the boardroom.

After the half hour on the floor, the management team reconvened in the boardroom and began to ponder what they observed. Richard asked each of them what they observed and each stated that they observed nothing that was out of the ordinary in the production of the gyroscopes that were being delivered to Ann Morrison and her customers.

The next question posed was what they should do since no one could find a problem. After a period of quiet, Robert Ellred stated that he recently attended a meeting where an individual who called himself the Change Maestro demonstrated some interesting thoughts on improving organizations. Robert said he had his contact information and that it might be worth a call to him to see if he would be willing to assist in finding a resolution to the problem.

Richard Jones asked for thoughts on this idea and everyone seemed to be in agreement that it would not hurt to at least talk to him. Richard asked Robert to reach out to him and see if there was anything that could be done. Robert said he would contact him that afternoon.

Notes

1. Reprinted by permission from *Springer Nature: International Journal of Theoretical Physics*, Simulating Physics with Computers, 1982. Page 471.
2. How Gyroscopes Work https://science.howstuffworks.com/gyroscope2.htm.

Chapter 2

The Conversation

Following the management meeting, Robert returned to his office and pondered for a moment about what he had gotten himself into for offering to talk to the Change Maestro. He was one of about a hundred individuals in this workshop looking at how to empower organizational change. It was not even centered on human capital management, but the message resonated with his thoughts about how to make organizations work better. Robert also remembered from some book that he recently read that if you don't ask the question you can't get the answer. He really did not have anything to lose by asking.

Having convinced himself that he had made the commitment, he now had to remember where he put the binder from the seminar. He knew he had placed it where he would not lose it, he just was not sure at the moment where that was. After a couple of minutes, he found the binder and found that TD Consulting was located on the East Coast, so they were an hour ahead of them. Since it was just about lunch time there he decided to call him later in the afternoon. In the meantime, he took out a pad to try and plan out the responses to any questions that might be asked.

At one o'clock, Robert asked his secretary to hold any calls and proceeded to call the offices of TD Consulting. He was not sure if he would get through to Tolan Daniel, the facilitator at the seminar, but it was worth a try. At best he could just leave a message and wait for him to call back.

He was surprised when on the second ring, Tolan answered the phone himself. Robert introduced himself and said how much he enjoyed the seminar last week and that he had a problem that he thought that Tolan might be of assistance. Tolan responded that the timing was good since he had just completed a client's project, but he had some questions before he could respond yes or no to the project.

Tolan began by asking Robert to tell him a little about Acme Gyroscope. Robert began by telling the Change Maestro that it was a family owned and operated company which had been around for nearly a century, making it one of the pioneers in the gyroscope industry, which primarily served the aeronautics industry. They were based in Ottumwa, Iowa, which is 70 miles from the Mississippi River in the southeast corner of the state. Robert further explained that the organization had recently suffered a loss with the death of their CEO and that the new CEO was the son of the late CEO and the great-great grandson of the founder of the company.

Tolan then asked Robert what made him believe that he has a problem. Robert responded that he was not sure how to answer that question. The father of the current CEO usually kept everything close to the chest and never let on that there were any problems. The new CEO started and just had the feeling that not everything was the way his father presented it. To add to the dilemma, one of their largest clients called the CEO the other day and said that the quality of the gyroscopes purchased from Acme had been declining. The CEO had asked the entire management team to complete an activity he referred to as a Stand in a Circle. None of the management team could see any problems during the half an hour that they stood on the factory floor.

Tolan responded by saying it appeared as though they have a reality versus perception problem. Robert asked what Tolan meant by that? Tolan explained that there are always two groups within an organization, one that understands the problem and takes steps to resolve it and one that does not see the problem. He further expressed that he may be able to assist with resolving the issues, but he had some ground rules that needed to be followed in order for the effort to be successful. Robert asked what those ground rules might be.

Tolan began by explaining that with every client there are a set of operating strategies that he imposes on them. The first strategy is that the determination of the problems will not be made by management's edict. No organization will develop sustainable change management if the way the problems are solved is because the CEO says this is the problem and this is the way we will resolve it. The consensus of the solutions will come from the human capital assets of the organization from the factory floor to the corner office taking ownership of the processes. The consensus of the solutions will come from getting the input of the stakeholders as to what they think the problem and the solutions are.

The second strategy is that the project would start by meeting the members of both Acme Gyroscope and their client in a neutral location. The purpose of this meeting is to begin the process of explaining the TLS Continuum and how it applies to their particular situation. During this orientation meeting the team would also learn about some tools that could be used to identify the problem.

The third strategy is that Tolan and his team need to have full access to the manufacturing process both at the client and Acme so that they could see the process in action. Robert inquired what Tolan meant by his team. Tolan responded by saying if they decided to start the project he was going to bring in Julianna Moore, one of his associates, to facilitate some of the steps to discover the problem and the solutions.

The fourth strategy is that there can be no procrastination of completing the assignments that the team provides to the organizations. Procrastination is the death knell of any change management effort. Tolan told Robert that there will be milestones that must be met in order for this to work.

The fifth strategy is that all parties must agree that once the solutions are uncovered, then they will commit to introducing the solution to their organizations. The success of the effort will depend on the resolution of any problems caused by individuals who do not perceive the problem in the same light so want to delay the solutions.

The sixth and final strategy is that while there can be no delaying the completion of the assignment there also can be no delay in beginning the process, preferably in the next couple of weeks.

Robert took a moment and then told the Change Maestro that he would have to take this information back to Acme management to see what their thoughts were. Tolan replied he understood the process.

Robert completed the phone call with Tolan and called Richard Jones' secretary. He asked whether Richard was in and available. She responded yes and asked him to hold on. Shortly after, Richard Jones came on the line and asked how things went.

Robert replied that things seemed to have gone well; however, the Change Maestro had certain ground rules that needed to be in place before he would help them. Robert expressed the view that they needed to call another management meeting and include Ann Morrison to hear what the plans were going forward. The meeting was set for the next morning at 8:00 am so that the meeting could get underway before the daily business routine got fully started.

The following morning Richard Jones and Robert Ellred showed up earlier than the rest of the team and Robert wrote the Change Maestro's ground rules on the white board at the front of the room. At the eight o'clock time slot, the rest of the team arrived along with Ann Morrison from Morrison Aeronautics. With her was her Director of Manufacturing, Larry Murphy.

Richard was watching the clock because the only missing person was his Director of Manufacturing, Arnold Levick. Robert was getting anxious to get started; however, Arnold strolled in half an hour late. When Richard reminded him that the meeting was supposed to start at 8:00 am, Arnold replied that the only proof that Acme had a problem was a complaint from Morrison Aeronautics and that they had completed the stand in a circle exercise and found nothing so in his mind the meeting was not a priority. Robert reminded him that if Ann Morrison stated she was having a problem with their products then they needed to take steps to seriously consider where the problems were arising from.

Having said that, Robert explained to those present that he had talked with the Change Maestro and that they had come away with a mutual understanding of the direction that needed to be taken. Robert then asked Richard to take over the meeting and explain what took place.

Richard approached the front of the room by the white board and explained what happened so far in the process to understand what might be causing the problem that Ann Morrison brought to their attention. He began by stating that Tolan Daniel had asked about the nature of their company—its history and its culture. With that understanding in place the conversation turned to the problem at hand. Robert further explained that he discussed with Tolan the use of the problem identification tool that Arnold Levick made reference to earlier.

Turning to the white board, Robert told the assembled team that the Change Maestro was willing to take on the assignment with the added assistance of one of his other facilitators but only under certain conditions. Ann Morrison, who had been listening to all the communication that had taken place, asked just what these rules were. Robert responded by saying the ground rules were written on the board at the front of the room and they were:

Rule #1: The determination of the problems will not be made by management's edict.

Robert explained that Tolan Daniel insisted that the search for problem resolutions will not be successful if the people in this room stated what the solution will be rather than letting the team develop the solution.

Again, Arnold objected to the process by suggesting that the problem will not be solved if we do not control the actions of the team. Robert explained that the Change Maestro stated that if the team does not own the process, there will be no lasting change.

Rule #2: Robert indicated next that the second rule was that **the initial training session to acquaint the team with what was going on was to take place in a location that was not the workplace of either organization involved in the process.** This is to remove the potential for one organization to overrule the other. Everyone needed to be on an equal footing. The suggestion was that they explore the use of the boardroom at the local country club.

Rule #3: Tolan Daniel and his team need to have access to the manufacturing process both at Morrison Aeronautics and Acme so that they could see the process in action. Tolan Daniel explained that in order to truly understand the current state of the process of providing gyroscopes to Morrison Aeronautics he and his team had to be able to see the process in real time. This will involve several visits to each facility.

Rule #4: There can be no procrastination of completing the assignment that the team gives to the organizations. Looking at Arnold Levick, Robert stressed that one of the ground rules was that when a milestone was due, no one in management or the human capital assets can try and postpone the completion of the assignment by stating they did not have time to do what was expected of them.

Rule #5: Again, looking at Arnold Levick, Robert stated that the next ground rule was that **once they have identified the problem and suggested solutions, the organization is committed to implementing the solutions within their organization.**

Rule #6: While there can be no delaying the completion of the assignment there also can be no delay in beginning the process, preferably in the next couple of weeks. Robert said that the final rule was that time is of the essence and that both organizations can't determine that they want to postpone the start of the learning process and identify the solutions to the problem brought from Morrison Aeronautics.

Despite the objections of Arnold Levick, those present determined that the problem just may be critical enough that they should proceed by accepting the ground rules and work to schedule an initial meeting with the Change Maestro and his team.

Robert thanked everyone for attending and closed the meeting with telling Richard that he would reach out to the Change Maestro and schedule the initial meeting between the Change Maestro and the team to try and resolve the problem, whatever it was.

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Chapter 3

The Meeting

> *And it is not sufficient being against, just saying, "Well, I don't think I like the way things are going." We have the responsibility to offer an alternative.*
>
> **—Robert F. Kennedy[1]**

Robert thanked everyone for attending and closed the meeting with telling Richard that he would reach out to the Change Maestro and schedule the initial meeting between the Change Maestro and the team to try and resolve the problem, whatever it was. After the meeting, Richard Jones suggested that he and Robert make the call to Tolan Daniel from his office after a short break.

Returning to Richard's office, they sat around his conference table and Robert placed the call to TD Consulting. A secretary answered the phone and Robert asked to speak to Tolan Daniel. After a short period, Tolan answered the phone.

Robert began by telling Tolan Daniel that they were joined on the call by Richard Jones, the CEO of Acme Gyroscope, and that he was very interested in the potential of their conversations. Tolan responded by thanking Richard for the possibility of aiding in finding the resolution to their dilemma. Tolan than asked whether the concepts had been discussed with the management team and what was their response.

Richard responded by saying that in general the management team and the CEO of their largest client were in favor of proceeding with the exception of the Director of Manufacturing from Acme Gyroscope. It was the consensus of the management team that they proceed. Richard then asked how soon they could begin delivering TD Consulting's services. The

Change Maestro responded that they had an opening for next week, but they needed to find an off-site location for the initial meeting. Further, it was necessary for the management teams from both Acme and Morrison to be in attendance without exception.

Richard suggested that there was space at the local country club where they could get a private meeting room where they would not be disturbed. Tolan said that would work and they planned to conduct the meeting the following Wednesday.

At 8:30 am the management teams from both Acme Gyroscope and Morrison Aeronautics arrived for the meeting with the exception of Arnold Levick, who once again arrived a half an hour late. His excuse was that he had something that had to be taken care of before he wasted time on this exercise. With everyone in place, Robert introduced Tolan Daniel to the management team members present and laid out the plan for the day. The plan consisted of understanding how to identify the problems and trying to find a process for understanding why Morrison was unhappy with the product coming out of Acme. He then turned the meeting over to Tolan Daniel.

Tolan thanked Robert and Richard for the opportunity to work with Acme Gyroscope. He then began by telling the assembled managers that he was going to discuss a new way of looking at their operations, one which at first may make them feel uncomfortable but over time will become second nature to them. But before he began that discussion, Tolan asked each person in attendance, starting to his left, to introduce themselves and relate their role in the organizations and what thoughts they had on the problem that Morrison Aeronautics was experiencing.

Richard Jones began the introductions by stating to the group that he represented the fourth generation of Jones to work for the family firm. He had gone to a major business school to earn an MBA hoping to help the organization become more sustainable. He further stated that he had just taken over Acme Gyroscope following the recent passing of his father. As for his thoughts on the problem with Morrison Aeronautics, Richard said he was not sure because he thought everything was going well from what his father had been telling him before his death.

Seated next to Richard Jones was Thomas Edwards. Thomas explained he was the chief marketing officer for Acme Gyroscope and had been with the organization for the past decade. He stated that the problem they were trying to resolve would have a direct effect on his dealing with other clients. He further indicated at this time he had heard no other feedback from clients claiming that there was a problem.

The next person going around the room was Luther Jones. Luther stated he had been with the firm as long as Thomas Edwards and was the chief financial officer of Acme Gyroscope. He expressed some concerns regarding the cost of any improvements. Luther further stated that as far as he could see there had not been any variation in the costs associated with building their gyroscopes.

The next in line was Raymond Ellis, the shop foreman. He offered a greeting for a good morning and began to explain he could understand the perception of a problem, but from his perspective on the shop floor he had not observed any variations in the way the units were produced, just as they have been doing for over 100 years. Raymond said he had been with the company 35 years and there did not seem to be anything remiss in the process on the shop floor.

Going around the room the next in line was George Thompson, who indicated that he held the same position with Morrison Aeronautics as Raymond Ellis held with Acme Gyroscope. He stated he had been with the company about 10 years and he just knew that the gyroscopes were not functioning correctly but could not put his finger on the reason why. He further stated that he was interested in seeing what impact these discussions could have on the operations.

Ann Morrison was the next person to respond to the request for introductions. Ann explained that she had been with Morrison Aeronautics for the past five years as the chief executive officer. She further stated that she was not clear on what the problem was, she just knew that her customers have been complaining about the gyroscopes in their Morrison products. She was hoping that the process they were undertaking would give her a clearer picture of what was going wrong.

Next to her was Larry Murphy, who was the director of manufacturing for Morrison Aeronautics and had been for nearly a decade. He expressed his concern that if there was a part of the process or a product within the process that was causing their end users to have problems, it was critical that they get to the bottom of the issue as quickly as possible before there were any more issues.

Larry Murphy was followed by Robert Ellred, the HR manager for Acme Gyroscope. Robert stated, "I have been with Acme for roughly five years and when we discovered this issue, based on a recent seminar I attended I invited Tolan Daniel and his company to help us resolve the problems between our two organizations."

Due to his late arrival, there was one more person who needed to introduce himself and that was Arnold Levick, who stated that he was the director of manufacturing for Acme Gyroscope. Following his brief introduction, he turned to Tolan Daniel and began a lengthy barrage of questions at the two individuals at the front of the room.

Arnold began by asking, "Why we should expect that Tolan Daniel could find a problem when we had tried a silly exercise to make Richard Jones happy and found nothing." Richard Jones tried to interrupt but Tolan Daniel waved him off. Arnold followed by asking "How do we really know that Morrison Aeronautics has a problem, since to the best of my knowledge no other customers were commenting they had a problem." He stated if there is a problem then it should be readily apparent and since it was not, maybe there is no problem, so they did not have to continue to waste their time in this exercise since he had more important things to do.

Sitting back in the corner of the room was a stylishly dressed woman who had been taking in all the action in the room. At this point she asked if she could ask a question. Tolan Daniel said please. She introduced herself as Julianna Moore, the Director of Client Development for TD Consulting. She turned to Arnold Levick and asked him if he would be willing to join her in a small exercise. Arnold thought about it for a moment and replied that since they were stuck in the meeting he might as well.

Julianna walked to the front of the room and grabbed a stack of papers and asked Richard Jones to pass out a copy of the page to everyone in the room. With everyone holding the picture in their hands, Julianna turned to Arnold and asked what he saw in the diagram (see Figure 3.1). Arnold looked at the sheet and remarked it just looked like a smooth flow down the pipe. Julianna asked him to look again and see if he still had the same answer. Arnold stated nothing had changed.

Julianna then explained that this was the beginning of getting a handle on the difference between understanding a problem and looking for a problem. The same condition might very well have been involved when they conducted the Stand in a Circle exercise that Arnold thought was a waste of time.

George Thompson raised his hand and asked what the Stand in a Circle exercise was that Arnold thought was a waste of time. Tolan explained that it was created by Taiichi Ohno and it was a way for managers to look at an operation and look for problems that might be in plain sight but overlooked.

Returning to the pipe diagram, Julianna asked the group to look for what might cause a problem with the water flow. Looking at the diagram again, Richard asked if the problem was at point E where there seemed to be a constriction of some type. Julianna responded by saying to Richard that it was good he began to look more critically at the issue at hand. She then

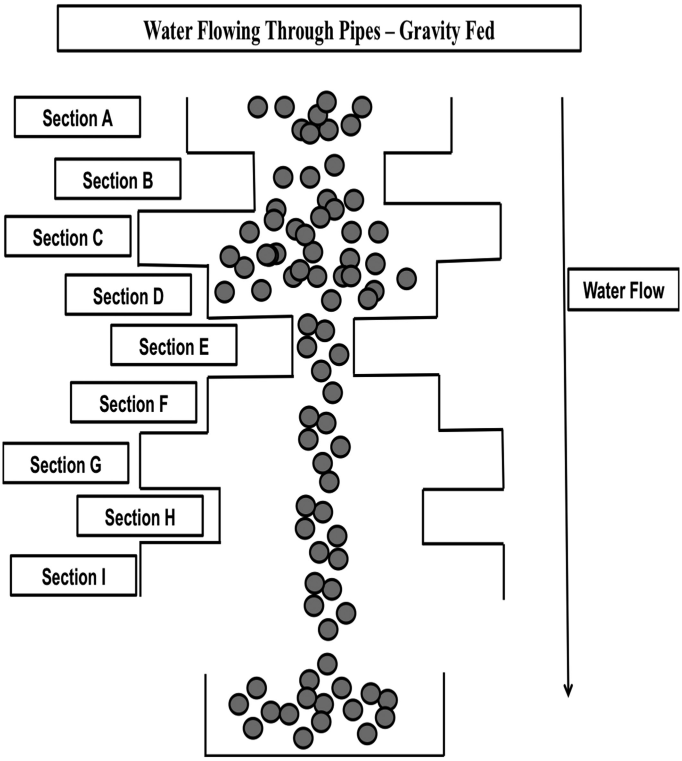

Water Flowing Through Pipes – Gravity Fed
Section A
Section B
Section C
Section D
Section E
Section F
Section G
Section H
Section I
Water Flow

Figure 3.1 Piping diagram.

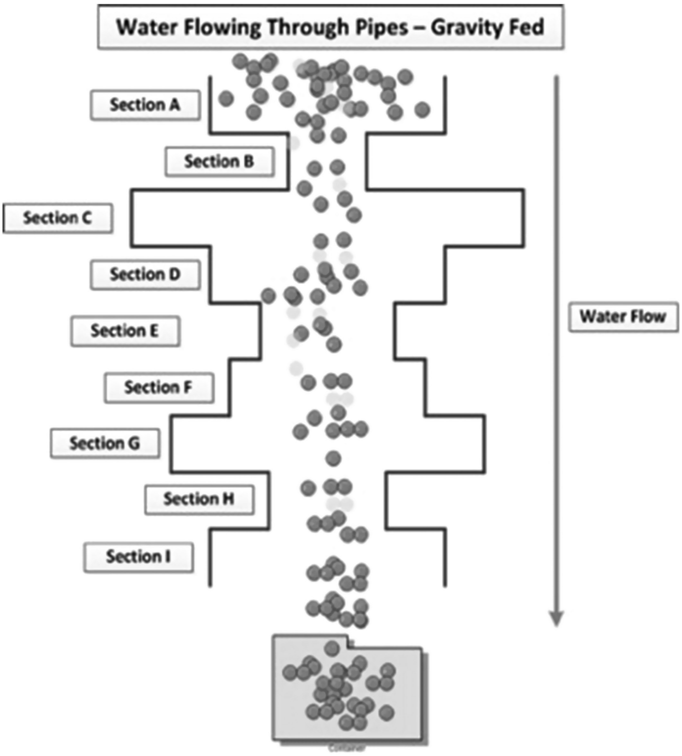
handed out a second page and asked the assembled individuals to look at the second sheet and asked what they saw that was different (see Figure 3.2).

Ann Morrison said she noticed that the problem at point E was no longer a problem. Tolan said good but what else do you see? Arnold popped up and said that according to this picture the problem had moved to point B. Tolan replied that was correct and that they need to understand that when they make one change they may very well cause another problem. When they look for causes of a problem they need to keep this in mind.

Tolan took over the meeting once again and began asking if there were any other thoughts about the potential problem or the two diagrams they had just seen. Hearing no other comments, Tolan said, “Before we begin our look at the issue at hand I wanted to go over the ground rules for TD Consulting’s involvement in the problem at hand.”

Rule #1: The determination of the problems will not be made by management’s edict.

“In the realm of things everyone in attendance here today are considered management, even you, Raymond and George. The only way


Water Flowing Through Pipes – Gravity Fed
Section A
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Section C
Section D
Section E
Section F
Section G
Section H
Section I
Water Flow

Figure 3.2 Piping diagram revised.[2]

you are going to make the solutions you arrive at work is if it is based on top down and bottom up engagement in your processes. Remember, empowerment equals engagement equals human capital asset ownership of the processes they are involved in," Tolan said.

Rule #2: The project would start by meeting the members of both Acme and their client in a neutral location.

Tolan explained that he had asked Richard and Robert to identify a neutral location in which they could begin the process of searching for explanations for the problem that Morrison Aeronautics is experiencing. This is done in order to minimize interruptions. There is no crisis at work that should require your command and affect your presence unless the building is on fire or falling apart.

Rule #3: Tolan Daniel and his team need to have access to the manufacturing process both at the client and Acme so that they could see the process in action.

This will not be their only meeting so prepare for the subsequent meetings. Tolan Daniel explained that he and Julianna will need access to both organizations to see the problem in real time. Tolan said he will touch base with Richard and Ann to schedule those visits.

Rule #4: There can be no procrastination of completing the assignment that the team gives to the organizations.

"My team and I are not here to solve your problem for you. You are going to have to carry some of the weight. To achieve that there will be requests for you to complete certain tasks. There can be no excuses why you can't complete those tasks as requested," Tolan said.

Rule #5: All parties must agree that once the solutions are uncovered, they will commit to introducing the solutions to their organizations.

Tolan explained that in every organization there are two types of individuals within the human capital asset base. The first are those who see reality. They see the problem, they feel the effect on the organization and their customers and take steps to create a new normal with the problem gone. It is critical that once they find the solutions there is no delay in implementing the solutions. Failure to do so will only create more dissatisfied customers, which will dramatically affect Acme's bottom line.

Rule #6: While there can be no delaying the completion of the assignment, there also can be no delay in beginning the process, preferably in the next couple of weeks.

Tolan stated that while at the moment he had a lull in client commitments, he couldn't promise that will be long term. As a result, it is imperative if the management of the two organizations want his and Julianna's help to resolve the issues confronting them, they must make the commitment to begin this process immediately so as to get the full benefit of TD Consulting's expertise.

Rule #7: TD Consulting will be looking at processes not solutions.

The final rule is that the two organizations must understand that TD Consulting is not here to solve the problem for Acme. As a result, their efforts will not be centered on solving Acme's problem but rather showing them how to find the solutions together.

Arnold Levick quickly interrupted and repeated his question from earlier. "If you are not going to bring us the solution, then why are we wasting money on having you here?" Tolan responded by saying Acme Gyroscope hired TD Consulting to help them find the problem, not the solution. And that is what they will do.

Having said that, Tolan said, "Let us return to something we talked about earlier and that is the subject of the two groups of people within an organization. We can present a better understanding if we think of the analogy of the mirror versus the window."

Once again Arnold stated, "What does a mirror and a window have to do with the situation we supposedly are confronted with here?" Julianna responded by saying that the mirror represents the picture within the organization. On the other hand, the window represents the voice of the customer. She said, "Let me explain it further."

Notes

1. Mathews, Chris. *Bobby Kennedy: A Raging Spirit*. New York, NY: Simon & Schuster, 2017. Page 255.
2. Piping diagrams used with the permission of Bob Sproull.

Chapter 4

Mirror vs. the Window

Julianna began the exercise by showing a picture of a mirror and a window next to each other in a room (see Figure 4.1). Julianna asked the group, "What do you see?" Julianna offered the position that the window and the mirror represent two visions of the business world. "In order to achieve sustainable process improvement, you must begin with a clear picture of what it is you do. For time immortal, we have been coaching our human capital assets to refine their capabilities into an elevator speech. You have all experienced them at various networking events where, when you ask someone what it is they do, they responded with this short description of who they are." One recent example Julianna came across was the response that "I am an information analyst, I solve problems you don't know you have in ways you can't understand." Julianna continued, "This is the mirror approach to the organizational view of the world. It is the wording of your organizational mission. It is the wording of your value statement. It is the way you see the world. But the real question is, does it answer the real issue at hand."

"While all the value statements and mission statements in the world are good they do not really answer the question. Switching from viewing the mirror image of ourselves to the window view of the world requires us to change the focus. We need to change the strategy. What we really do is not found in the above statements. It is found in the voice of the customer. It is how the world sees us, not how we see the world. Why do our stakeholders come to us? What is it that we do that enhances the stakeholder in the marketplace? These are examples of the window statements."

"The beginning of the improvement process is determining what it is we do. In the case of Acme Gyroscope, it determines what the customer is

Figure 4.1 Mirror and the window image.

asking of us, how they want it, when they want it, and at what cost. Our responses must be coached in those terms. The same applies whether we are talking about a business, a service provider, or an educational institution."

"The window view of the world provides the picture of the view of the current state of the organization. It tells us how we are responding to the customer's requests. It tells us whether our processes and systems are functioning at the maximum level." Tolan interjected, "If we change our focus from a general view to the problem at hand, it presents the picture of reality versus perception."

"The perception is the mirror of your operations. It looks at your organization from the organization's view. Sure, there may be a problem, but every organization has its problems because the world is not perfect. Despite those problems the organization continues to function as it always has, so what is the big deal?"

"The window side of the paradigm is looking at the organization from outside the organization. In the case before you, Morrison Aeronautics says it has a problem. Reality is the outside view of the organization. Reality is Ann Morrison saying they have a problem with the product Acme Gyroscope is delivering to them."

Julianna re-engaged in the conversation by suggesting that Arnold Levick's thoughts about the process represents the mirror of the issue. Arnold's belief that this is a waste of time means he is looking at the Morrison complaint from the mirror perspective. If they are going to be successful in seeking the solution to the issue, then both organizations must shift from perception to reality. The process demands that all the stakeholders with a stake in the outcome have to first see the problem. The team must recognize that there is a problem. They must recognize how the problem manifests itself. Once that has been achieved, then the next step is to identify how that problem affects the rest of the process. The final part of the process is determining what changes to the organization are required to resolve the problem.

In order to achieve this part of the process, Tolan and Julianna stated that in the coming days they will schedule a visit to each facility to observe the process in real time.

Tolan finished the day by saying that the group had established the roadmap for continuing and that they had done well but there was still a lot of work to be done.

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Chapter 5

The Visit to Acme Gyroscope

Two days after the meeting at the country club, Tolan Daniel and Julianna Moore arrived at the headquarters of Acme Gyroscope. What they observed was a facility that was no different than many of their existing client base. They entered the front door and approached the security desk. The guard at the desk welcomed them and asked how he could help today. Tolan began to respond to the guard when Richard Jones approached them.

Richard welcomed them to Acme Gyroscope and stated that he had reserved a conference room from which they could work and had also arranged for a catered lunch so that the management team could have a working lunch. Tolan responded he liked working lunches to which the three of them had a small laugh over.

Richard turned to the security desk and asked the guard to issue free access badges to the entire plant, and after obtaining the individual passes Richard led Tolan and Julianna to the reserved conference room. When they arrived, the full management team including Arnold was already in the room and seated at the table. Richard thanked everyone for being on time and turned the meeting over to Tolan Daniel.

Tolan Daniel also welcomed everyone and laid out the plan for the day's visit. The plan for today involves two interdependent parts. The first part involves a tour of the plant to obtain an understanding of the supply chain flow through the plant. The second part involves the group to reassemble to discuss the findings from the plant tour. From that Tolan stated, "We will work through a problem-solving process, so that in the future you have the ability to resolve issues like the Morrison complaint." Arnold Levick stated he thought that they already knew how to resolve problems. Tolan replied by saying "You might have in the past been able to solve visible problems, but it is the 'invisible' problems that go unchecked." Arnold inquired what Tolan meant by "invisible problems." These are problems that are in plain sight, but have not been looked for. There may be small deviations in the way a part is produced. There may be small deviations to the process itself.

Raymond Ellis, the shop foreman, offered to lead the tour and so Raymond, Tolan, and Julianna left the conference room to conduct the tour. As they were leaving, Raymond asked Tolan where they wanted to begin. Tolan said he wanted to start at the back door where the materials come into the plant. Raymond asked, "what do you expect to find?" Julianna responded that they wanted to observe the process flow and get a feeling for if there might be any issues. Raymond said they had gone over the process many times including the use of the Stand in a Circle exercise and they saw nothing out of the ordinary. Julianna offered the view that "unless you are involved in the process in detail you might overlook an obstacle that was in plain sight."

Arriving at the loading dock, Julianna turned to Raymond and told him that in order for this tour to be meaningful she needed Raymond to envision he was a part coming into the loading dock and then they would follow him through to the end product and out the shipping dock. Every step in the process needed to be covered in detail.

Raymond replied that what they were asking was a tall order, but he would try. Tolan interjected that if he needed to have an individual working in that department to become involved in the tour then do so. With that in mind Raymond began the tour.

Raymond began by explaining that on most days they receive a wide array of trucks delivering materials that go into the finished gyroscopes. When they arrive, the parts are checked in and matched to the appropriate purchase orders. Then the parts are sorted by process needs and sent on to the inventory department. As he finished the explanation, Joanna Jefferson, who was a shipping clerk, interjected that Raymond had left out some steps. Raymond responded that he appreciated her willingness to help, but this was a management effort and he understood what the process looked like.

Julianna immediately interjected that his statement had violated one of the ground rules of this project in that decisions were not meant to be management's edicts. Tolan then asked Joanna to complete her thoughts. Joanna explained that part of the intake process also involved not only matching the incoming parts to the purchase orders, it also involved performing quality tests to ensure that the actual parts matched the specific order product specifications. If a part was not up to the expected quality, they were shipped back to the vendor for rework before entering the system. Tolan thanked her for her input and asked Raymond to continue the tour.

As they were walking toward the next stop in the process, Raymond remarked that he did not understand the exchange at the loading dock. Julianna responded that in any process your frontline people, such as Joanna, are your subject matter experts. They see and feel the process every day. So, when you are trying to seek out solutions they are the most valuable players in the scenario. In the Toyota Production System each front-line worker has a button or chord in front of them which allows them to stop a process in place if there is something that is going wrong. This alerts a supervisor, who comes to their work station and they jointly work to resolve the issue.

As they reached the inventory department, Raymond explained that as the parts arrive from the shipping dock they are placed in bins which directly correspond to a particular client order. The inventory department then releases the products to the factory floor work cell where the specific client order is being manufactured. After observing the inventory department for a short period of time they asked Raymond to take them to the factory floor.

As the three of them walked toward the factory floor, Tolan and Julianna were taking notes about the flow of materials through the process as they had observed so far looking for areas of constraints on the system.

As they reached the factory floor, Tolan asked Raymond to once again explain the flow of materials through the factory floor and how the finished product gets to the shipping dock for dispatch to the end users. Raymond began by explaining when the container arrives from the inventory area it is delivered to the work cell that has been assigned to build a specific gyroscope. The work cell is designed so that all the parts of the gyroscope are within reasonable reach of the floor operator. Julianna asked Raymond to define reasonable reach and asked if they could see one of the work cells in action. Raymond said they could do that and proceeded to move toward the nearest work cell.

As they approached the work cell, Tolan noticed that some of the required tools were not in an established location but rather scattered through the work cell. Further, in some cases the human capital asset had to move several work cells over to obtain a required tool. When asked why that was the arrangement, Raymond responded that was just the way the factory was designed.

Following the tour of the factory floor Raymond led them back to the loading dock where Tolan and Julianna observed that as each gyroscope reached the loading dock a quality person inspected the gyroscope model for its specifications and end user data. The paperwork was then compared to the original order to ensure that the right gyroscope was being sent according to the customer demands.

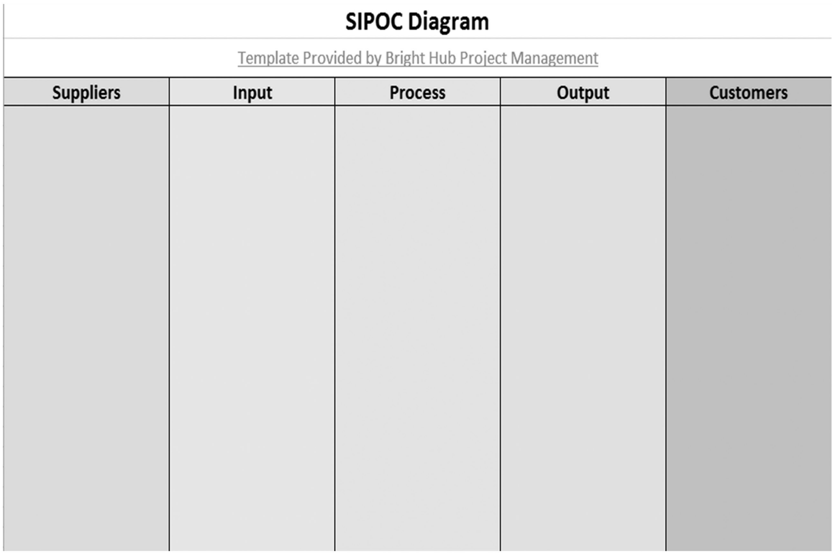
As they returned to the conference room they found that lunch had arrived, and the entire management team was present and anxious to find out what Tolan and Julianna had discovered in their journey. Tolan, Julianna, and Raymond picked up their meals and found seats and Tolan took out his notes and asked for attention from the gathered managers.

Once everyone had served themselves they took their seats at the table and Tolan began to discuss with the team the events of this morning. Tolan explained that they had walked the entire plant observing the processes in play and the interaction with the human capital assets on the floor. He then began by asking the assembled managers some potent questions.

The first question that Tolan posed was, "How well do you know your organization's processes?" Arnold was the first to respond by stating, as the director of manufacturing, he knew exactly what was going on which was why he still had reservations about this whole experiment. Julianna picked up the discussion by asking a follow-up question by suggesting that if Arnold knew his organization's processes who are the stakeholders in the process? Arnold asked what she meant by stakeholders. Tolan replied, "Stakeholders are those individuals who have an interest in the outcome of the process. You can identify who those individuals are by utilizing a tool we call a SIPOC analysis. In it you begin by identifying the suppliers who fuel the process. With those identified you then determine what it is they supply to and to what part of the total process they contribute. Once that has been completed you then look at your processes and determine what their service or product allows to be delivered to the end user. In other words, because supplier A introduces part A to process A the process is able to generate output A which delivers to the customer the product they have purchased."

Julianna suggested that the group should take a moment out of their process to construct a SIPOC chart for Acme Gyroscope (see Figure 5.1). Tolan further suggested that they work in teams of two in order to determine if there was a consensus on the views of the group on the parts of the SIPOC.

After a brief amount of time had passed, Tolan pulled the group back together and asked them about their findings. Arnold was the first to ask how detailed the list had to be. Tolan responded that initially the list should include anyone who puts their hands on the process. Remember that the same exercise can be used by the stakeholder's stakeholders. Tolan said, "Once you



SIPOC Diagram

Template Provided by Bright Hub Project Management

Suppliers	Input	Process	Output	Customers

Figure 5.1 SIPOC form.[1]

have completed the SIPOC you then can begin to answer the question I posed to you initially, how well do you know your processes? It is also important that in the end we take your SIPOC and narrow down to the critical few those stakeholders who are most important to the process at hand."

Tolan explained that "We can obtain a better view by now creating a process map (see Figure 5.2). A process map provides you with an eagle's eye view of your organization's processes." Returning to the tour that he and Julianna had just completed, Tolan walked to the easel pad at the front of the room and drew a box. Tolan explained that each box represented a step in their process and the flow of material to the next stage is shown by an arrow pointing to the next step in the supply chain and finally to the end user. "If we go back to our list of stakeholders in the SIPOC," Julianna explained, "we can take each stakeholder and create a process map which demonstrates their contribution to the end product. The final goal is to identify the critical few stakeholders that could affect the gyroscope as it moves toward the final product."

Raymond inquired whether it included every step in the process to which Tolan responded that in a perfect world the process map should include all of the steps in the process. With that in mind, Tolan suggested that the team create one for Acme Gyroscope.

Based on their tour notes, Tolan drew a box on the white board and labeled it "materials arrive at the loading dock." He turned to the team and

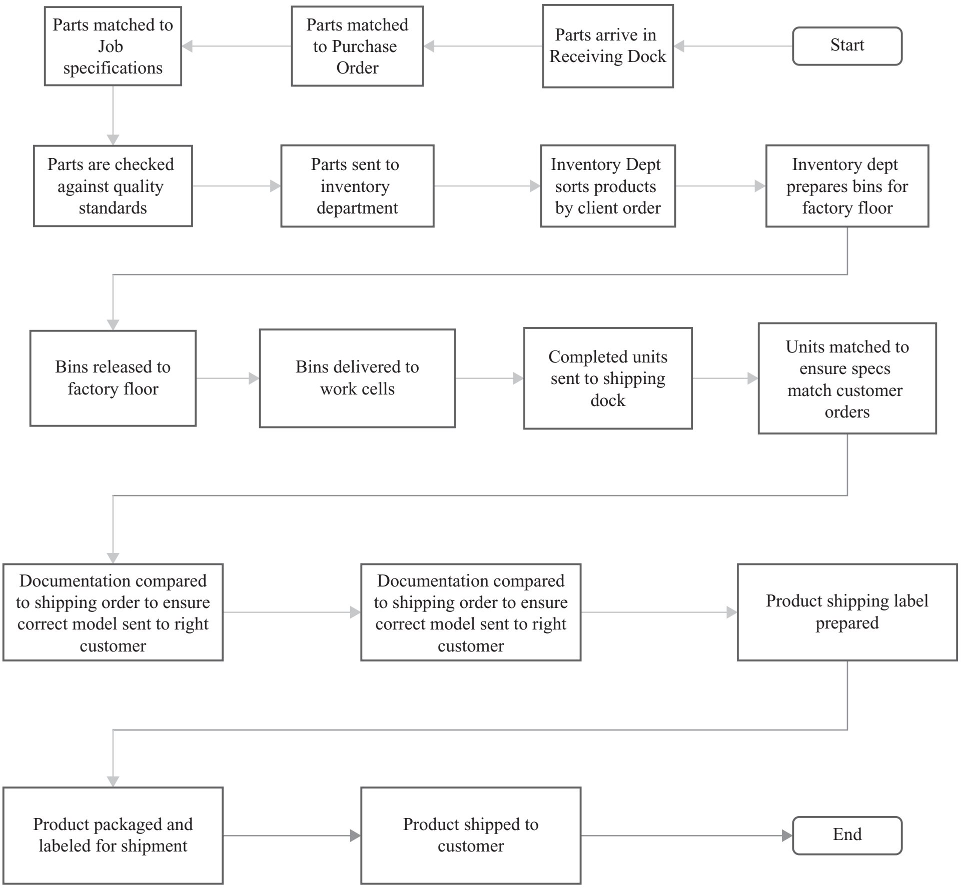

Start
Parts arrive in Receiving Dock
Parts matched to Purchase Order
Parts matched to Job specifications
Parts are checked against quality standards
Parts sent to inventory department
Inventory Dept sorts products by client order
Inventory dept prepares bins for factory floor
Bins released to factory floor
Bins delivered to work cells
Completed units sent to shipping dock
Units matched to ensure specs match customer orders
Documentation compared to shipping order to ensure correct model sent to right customer
Documentation compared to shipping order to ensure correct model sent to right customer
Product shipping label prepared
Product packaged and labeled for shipment
Product shipped to customer
End

Figure 5.2 Acme gyroscope process map.

asked what the next box should be. Raymond, who had led them on the tour, said the next block should be the movement of the parts to the inventory area to prepare them for building the individual gyroscopes. Tolan looked confused at this point, causing Raymond to ask if he forgot something. Tolan replied "Let me see if I understand you correctly. The way you presented the process is that the ordered parts arrive at the shipping dock and then immediately go to the inventory department, is that what you are telling me?" He continued, "aren't you missing something?"

Raymond replied he did not think so. Tolan then asked if Joanna Jefferson had indicated any other steps that Raymond missed. Then Raymond thought about it for a moment, before he remembered that the process also included checking to see if the order numbers on the shipment matched the expected purchase order numbers. Julianna continued by asking what was the next step. Raymond stated based on the last block the next step should be the quality check to ensure that the parts coming in match the job specifications for the customer's orders. Tolan asked if there should also be another check at this time. Arnold asked, "For what are we checking?" Tolan responded that "We have matched the purchase orders and checked the quality of the materials, but did we check for package content?" Tolan said this check is designed to see whether they received the number of parts that were ordered. Julianna responded by saying that they have matched the incoming materials to a purchase order that requested 25 pieces of a particular part but when they counted the box contents they were short parts. Tolan drew additional boxes and connecting arrows on the white board.

Tolan encouraged the group to continue building the process map. To facilitate the process Tolan drew another arrow to an empty box and asked, "What is the next step?" Arnold said he could see that the next step ought to be transfer to the inventory holding area. He then asked the team what was the next step. Julianna said that was correct and Tolan drew an additional box.

Julianna then asked what happens when the parts get to the inventory department. Once again Arnold stated that the parts are sorted by part numbers and placed in master bins until they are needed for a specific customer order. The next step then would be for bins to be compiled with each bin containing the parts needed for a client order. Tolan turned to Arnold and asked them if they were sent to the floor in a pull environment or a push environment. Arnold and Raymond looked perplexed and after a few minutes Arnold inquired what was the difference. Tolan asked, "How do you determine when the parts flow to the factory floor?" Raymond said they seem to just flow in a periodic fashion. Tolan said that was the way many companies do it and in theory there is nothing wrong with that approach. But there is a better way. In a push environment, as the parts flow into the inventory department they are then sent to the factory floor whether the parts are needed at that specific moment or not. The better way to avoid errors in the process is to not send them to the floor until such time as they are actually needed. Tolan said, "We refer to this as a pull environment, meaning as we have an order to construct a gyroscope we ask the inventory department to send us the exact parts needed for that job and no others."

With the input of the management team, Tolan continued to add blocks until the entire process map was completed. With the completion of the map on the white board, Tolan turned to Arnold and asked him if he ever completes time studies on the manufacturing floor. Arnold responded by saying "yes, everyone does in the manufacturing world." Tolan went on to explain, "you can complete time studies relatively easily by converting your process map to a tool which we call a value stream map. In completing the value stream map, you take the process map and insert the time intervals between each step. The goal is that you bring the process map from the eagle's eye view down to the ground level."

At this juncture, Julianna suggested that they take a short break during which she asked Richard Jones if Joanna Jefferson could be invited to join the group for the next phase. Robert Ellred, with a strange look, asked why they would want to pull someone off the floor to participate in this meeting, to which Julianna said we will explain after the short break.

Note

1. The SIPOC template is developed by Bright Hub Project Management and is a free download from their site https://www.brighthubpm.com/templates-forms/6179-ten-free-six-sigma-templates-you-can-download/#imgn_6

Chapter 6

Acme Gyroscope Brain Trust[1]

Following the short break, everyone returned to the conference room. While she looked perplexed as to what was going on, Joanna Jefferson had also joined the meeting. Seeing her perplexation about the reason for her being there, Julianna stated that the reason would be clear in just a couple of minutes.

Tolan walked up to the center of the room and asked the group that if they were in his shoes what they thought the next step ought to be. Richard Jones was the first to suggest that by now he would expect that some sort of solution would be forthcoming. He believed that the purpose of hiring TD Consulting was to provide a solution to the problem that Ann Morrison had brought to their attention.

Tolan responded by saying that "TD Consulting never promised to deliver a solution, what we did promise was to show you the way to resolve problems in your processes. Our mission is to empower organizations to lead their organizational change efforts, which includes moving them from fighting fires to becoming solution seekers. It means showing you how to become more inclusive and diverse in the audience that helps you resolve problems. One of the tools we use to achieve this comes from the times of Franklin D. Roosevelt and we call it a brain trust. The concept is founded in the assembly of a group of advisors and experts to help in reaching decisions on a particular issue. If you were actively involved in the military or in sports, you are familiar with the concept but under different terms. Following a military exercise, the team, minus the officers, gather to review the exercise from all aspects. Your sports teams, following a game, undertake the same activity. Its purpose is to look at what went right in reaching the objective. It also looks at what went wrong in the exercise. No member of the brain trust has any greater input than another member. No member of the brain trust can overrule any other member of the group and say we have to do it this way. There are no officers or coaches present to interject their opinions or demands."

As part of the control stage of the continuous process improvement process, we can benefit from the usage of a brain trust. The process calls for the development of a cross-functional team comprised of the stakeholders of the process. Julianna turned to Joanna and indicated that she was one of these stakeholders. At the end of the process the team, minus the managers, can come together and review the work of the team in seeking out the solutions that were uncovered by the team. Once again, the intent is to look at the solution-seeking effort from three interdependent perspectives.

Tolan said, "The first of these three perspectives ask us to step away from what I refer to as the Carnac syndrome. We need to get away from choosing a solution out of thin air because it is the first solution that comes into our heads. We need to get away from looking at the problem that has been presented to us by a stakeholder, in the form of a voice of the customer issue and stating that we have the perfect solution. Morrison Aeronautics has told Acme Gyroscope that they are perceiving a problem with the units being delivered to Morrison's facilities. The first perspective asks the question *What is our current state?* We begin with critically looking at what the process is supposed to deliver to Morrison. With the understanding of what needs to be delivered to the stakeholder, we can begin to determine the process flow looking along the way for system constraints. Among the tools that can be utilized are the tools that Richard utilized when he asked you to participate in the Stand in a Circle exercise. The exercise is designed to provide you with some insight into where problems can arise. The identification of the problem presented by the customer must be data-based in nature so that we have some basis for determining the constraints in meeting the needs of our customers. We need to ask some very critical questions to arrive at our conclusions."

"In our deliberations have we considered everything that might be causing the issue? Have we considered that there may be more than one single problem? Have we jumped at the first problem possibility that arose? Have we taken careful steps to look at all options available?"

"Like the sports team, in their brain trust, we need to ask what we did right in selecting the problem and even further we need to ask what did we do wrong in selecting the problem. Is our problem selection based on data-based evidence or did management determine that it had to be the issue at hand?"

"Once we have determined the exact problem we then need to turn to the second perspective, which is to look at the possible solutions to the problem identified in the *What is the current state* stage. With the concept of the problem in hand, we now turn our discussions to the potential solutions. This part of the process considers the answers to the question *what does a future state look like*?"

Tolan continued, "I totally get human nature. It is a natural tendency for us to try and find the easy way out of a problem. As managers, we tend to gravitate to the lowest hanging fruit or determine our problem resolutions based on cost — the cheaper the better. We fail to take into consideration such things as total cost of ownership in our purchase decisions. However, what if the low hanging fruit does not actually present us with the ideal solution to the problem at hand? When we begin the process of selecting that ultimate solution, it is critical that we consider all the possible solutions. The primary rule of thumb is that the chosen solution should be the one that comes closer to meeting the voice of the customer. That may be the low hanging fruit, but more often than not. The easy solution may meet your needs, but it may not meet what the customer needs. It is critical that we take that first choice of solutions and investigate whether that was the best route for us to go. We need to look at how we came to the decision to choose the indicated solution. We also need to look at why we eliminated any alternative solutions. What were the factors that made a particular solution better than any other one? What benefits were brought to bear in making any decisions? Which solutions would better meet the requirements of the stakeholders? The team has to approach the discussions with an open mind to all alternatives. One of the key factors in the success of a brain trust is that every member of the trust is treated equally and so their views carry as much weight as the next person. Each person's view of the problem and its potential solutions are based on their particular biases and perspective of the environment within your organization. No one is better than another. No view is more correct than another if you are basing your views on ideas expressed. Each solution needs to be equally evidence-based as we did with the problem identification. With the problem identified and the solution selected we move to the final of the three perspectives, that of *what wows*?"

"We can spend all the time in the world coming to decisions about what the root cause of your problems are and based on evidence-driven metrics arrive at what we think the best solutions are to those problems, but we are not the deciding factor. We are not the king of the universe as to problem solutions. That title resides with our stakeholders. The title resides within the voice of the customer."

"The next step in the chain is the presentation of the various solution options to our customers, specifically the one who had reported an issue with our products/services. Our intent is to get the input of the stakeholders as to what appears to resolve their issues. Based on their process chain which of the solutions that we have put together makes their process run more efficiently. Once they have had the opportunity to review the identified problem and decided on solutions we need to encourage them to try the solutions in real time to see if the problem is resolved."

"What happens if when they try the solutions the problem is not corrected? At this point your team and the client's implementation team need to come together and review the problem and see if you missed any potential solutions in your review of the problem again. With the input from both teams you need to go back over the available solutions and see if there was something about the discarded options which under new review might hold enhanced possibilities of resolving the problem for all parties."

At this point, Julianna took over the meeting and explained where the process goes from here. She indicated that within the next week, she and Tolan would repeat the process that was done today with the people at Morrison Aeronautics. They will utilize the same steps taken today and review their process flow to see if the problem that they are experiencing might be at their end rather than at Acme Gyroscope. Julianna said, "Once we have completed our visit we will then schedule a video conference with the members of both teams together and discuss our findings with everyone. Once again, we may not present a single solution but rather discuss with both teams on how you go about seeking out solutions to your organizational issues."

Tolan turned to the assembled management team at Acme and asked if there were any further questions. Raymond asked if the efforts that were undertaken today were typical for most problems that might be found within the organization. Julianna responded that there is no such thing as a typical way to resolve an issue. Each and every problem will be resolved via the same tools of inquiry, but the wide range of solutions will differ depending on the nature of the defects.

Tolan thanked everyone for their commitment to the process today. He expressed appreciation for their willingness to step out of their comfort zone to consider a different method for resolving issues that have arisen in their organization.

Note

1. Based on the Design for Growth Model as described in an article titled Design for Action in the September 2015 issue of *Harvard Business Review*. Image used with permission from the authors.

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Chapter 7

The Visit to Morrison Aeronautics

A week after the Acme Gyroscope visit, Tolan Daniel and Julianna Moore arrived at the headquarters of Morrison Aeronautics. What they observed was a facility that was similar to the headquarters facility of Acme Gyroscope. They entered the front door and approached the security desk. The guard at the desk welcomed them and asked how he could help today. Tolan began to respond to the guard when Ann Morrison approached them.

Ann welcomed them to Morrison Aeronautics and stated that she had reserved a conference room from which they could work and had also arranged for a catered lunch so that the management team could have a working lunch. Tolan responded he liked working lunches to which the three of them had a small laugh over.

Ann turned to the security desk and asked the guard to issue free access badges to the entire plant and after getting those she led Tolan and Julianna to the reserved conference room. When they arrived, there were two other management members in the room, the director of manufacturing and one of his shop foremen. Julianna turned to Ann Morrison and inquired whether there were other management team members who should be in attendance at this meeting.

Ann thought about it for a moment and said yes there were several others who ought to be here and reached for a phone to get her administrative assistant to request the presence of several other management team members.

Shortly after the phone call several other management members entered the room and took seats at the conference table. Tolan Daniel welcomed everyone and asked if everyone would take a moment and introduce themselves and their roles. Tolan told Ann that since they met her over at Acme Gyroscope he did not need an introduction to her. Larry Murphy was the first to respond, indicating that he was the director of manufacturing. He was followed by George Thompson, who indicated that his role was that of the shop foreman. The next to respond to Tolan Daniel was Michael Merrick, who indicated that his role was that of the director of HR. The person next to Michael Merrick was Robert Williams, who said he was the chief financial officer. As they were wrapping up the introductions, the conference room door opened up and Sarah Effron entered the room. She apologized for being delayed but she was on a conference call when the request for her to attend came into her office. Tolan welcomed her and asked her to introduce herself. Sarah responded that she was the chief marketing officer for Morrison Aeronautics.

With the introductions completed, Tolan and Julianna introduced themselves and explained that they were here today to gain an understanding of what Morrison Aeronautics believed that the problem with the Acme Gyroscope products consisted of. As he did with the team at Acme Gyroscope, he reiterated that he was not there to solve their problem but rather to empower and assist them in seeking out a solution to the issue at hand. He then laid out the plan for today's visit. He began by saying that through several actions he and Julianna would acquire an overview of the way Morrison Aeronautics uses the gyroscopes delivered from Acme Gyroscope.

The two primary activities will involve hands on actions on their part. Julianna explained that the first activity involves the entire management team going down to the factory floor and observing the process in real time. She proceeded to hand out a sheet of paper to everyone. Tolan told Ann this was the same exercise she participated in at Acme Gyroscope. Julianna turned to the group and began the explanation of the worksheet they had in their hands. Julianna continued by stating that the exercise was created in the mid-1940s by Taiichi Ohno of the Toyota Production System. The purpose of the exercise is to over a period of time, usually about 25 minutes, to observe the production process in real time to identify where there might be problems.

The management team left the conference room to reconvene on the factory floor. Upon reaching the factory floor, Larry Murphy stated he was unclear about the purpose for the exercise they were scheduled to begin. Julianna responded that in any process there are constraints that takes the form of non-value-added activities, which by their nature slow down the process. Further, many of these activities are right under your nose because you have not looked for them. With an open mind we want you to really look at your production line and see if there are issues that you may have overlooked. Is the flow of materials smooth and efficient or does the flow get hung up in places? With that in mind, the management team began to observe the production line with skeptics believing that the issue under review was caused by outside partners and not in Morrison Aeronautics.

After about a half an hour, the management team and the TD consultants returned to the conference room. As they took their seats at the conference table Tolan asked the group what they observed and if they learned something they did not know before standing in the circle?

George Thompson, the shop foreman, was the first to respond by stating he saw one part of the process appearing to run slower than the others. George said he did not know the answer for the issue, but it did warrant further examination and he would do that after their meeting. No one else seemed to have observed anything out of the ordinary.

Julianna took control of the management team and stated that it was now time for the second activity, which is a tour of the facility. The purpose of the plant tour is to gain an understanding of the flow of materials through the supply chain. Following that, Tolan stated, “We will work through a problem-solving process so that in the future you have the ability to resolve issues like the Acme complaint.” Larry Murphy stated he thought that they already knew how to resolve problems. Tolan replied by saying they might have in the past been able to solve visible problems, but it is the “invisible” problems that go unchecked.

George Thompson, the shop foreman, offered to lead the tour. As they were getting ready to begin the tour, Ann Morrison asked if she could also go along for the tour. Julianna, after a moment’s thought, replied that While we understand the interest in getting to the bottom of the issues with Acme Gyroscope, we will be asking some tough questions along the way and depending on your corporate culture it is possible that any employees that we may encounter may not feel they have the ability to express their views openly about the processes. We need to remember that the front-line employee is your process subject matter expert. Upon completion of the tour we will share all of our findings with the management team when we reconvene.”

George, Tolan, and Julianna left the conference room to conduct the tour. As they were leaving, George asked Tolan where they wanted to begin. Tolan said he wanted to start at the back door where the gyroscopes come into the plant. George asked Tolan and Julianna what they expected to find. Julianna responded that they wanted to observe the process flow and get a feeling for if there might be any issues. George said they had gone over the process many times including the use of the Stand in a Circle exercise and they saw nothing out of the ordinary (see Table 7.1). Julianna offered the view that unless someone is involved in the process in detail they might overlook an obstacle that was in plain sight.

Arriving at the loading dock, Julianna turned to George and told him that in order for this tour to be meaningful she needed him to envision he is a part coming into the loading dock and then they need to follow it through to the end product and out the shipping dock. It needs to cover every step in the process in detail.

George replied that what they were asking was a tall order, but he would try. Tolan interjected that if he needed to have an individual working in any department to become involved in the tour then do so. With that in mind George began the tour.

George began by explaining that on most days they receive a wide array of trucks from a wide assortment of outside vendors delivering materials that go into the finished aeronautical products. When they arrive, the parts are checked in and matched to purchase orders. Then the parts are sorted by model numbers and then by customer and sent on to the inventory department. As he finished the explanation, Samantha Devlin, who was a shipping clerk, interjected that George had left out some issues. George responded that he appreciated her willingness to help, but this was a management effort and he understood what the process looked like.

Julianna immediately interjected that his statement had violated one of the ground rules of this project in that decisions were not meant to be management's edicts. Tolan then asked Samantha to complete her thoughts. Samantha explained that part of the intake process also involved not only matching the incoming parts to purchase orders, it also involved performing quality tests to ensure that the right parts were matched to the product specifications. If a part was not up to the expected quality, they were shipped back to the vendor for rework before entering the system. Tolan, noting that there were an assortment of gyroscopes coming into the receiving dock, asked if Samantha had in place a system to ensure that the right gyroscope got to the right order. Samantha replied that other than matching

Table 7.1 Stand in a Circle Worksheet*

	Observation	*Category*	*Costing You*			
			Space	*Time*	*Energy*	*Money*
1						
2						
3						
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5						
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* The SIPOC template is developed by Bright Hub Project Management and is a free download from their site https://www.brighthubpm.com/templates-forms/6179-ten-free-six-sigma-templates-you-can-download/#imgn_6

the part number to the purchase order there were no safeguards in place to prevent the wrong model going to the wrong job. Tolan thanked her for her input and asked George to continue the tour.

As they were walking toward the next stop in the process, George remarked that he did not understand the exchange at the loading dock. Julianna responded that "in any process the frontline people, such as Samantha, are your subject matter experts. They see and feel the process every day. So, when you are trying to seek out solutions they are the most valuable player in the scenario. In the Toyota Production System each frontline worker has a button or chord in front of them which allows them to stop a process in place if there is something going wrong. This alerts a supervisor, who comes to their work station and they jointly work to resolve the issue."

As they reached the inventory department, George explained that as the parts arrive from the shipping dock they are placed in bins that correspond to a particular client order. The inventory department then releases the products to the factory floor where the client order is being manufactured. After observing the inventory department for a short period of time they asked George to take them to the factory floor.

As the three of them walked toward the factory floor, Tolan and Julianna were taking notes about the flow of materials through the process as they had observed so far, looking for areas of constraints on the system.

As they reached the factory floor, Tolan asked George to once again explain the flow of materials through the factory floor and how the finished product gets to the shipping dock for dispatch to the end users. George began by explaining when the container arrives from the inventory area it is delivered to the work cell that has been assigned to build the particular aeronautical product. The work cell is designed so that all the parts of the product are within reasonable reach of the floor operator. Julianna asked George to define reasonable reach and asked if they could see one of the work cells in action. George said they could do that and proceeded to move toward the nearest work cell.

As they approached the work cell, Tolan noticed that some of the required tools were not in an established location but rather scattered through the work cell. Further, in some cases the human capital asset had to move several work cells over to obtain a required tool. When asked why the arrangement, George responded that was just the way the factory was designed.

Following the tour of the factory floor, George led them back to the loading dock where Tolan and Julianna observed that as each finished product reached the loading dock a quality person inspected the product, matching its specifications and end user data. The paperwork was then compared to the original order to ensure that the right product was being sent according to the customer demands.

As they returned to the conference room they found that lunch had arrived, and the entire management team was present and anxious to find out what Tolan and Julianna had discovered in their journey. Tolan, Julianna, and George picked up their meals and found seats and Tolan took out his notes and asked for attention from the gathered managers.

Once everyone had served themselves, they took their seats at the table and Tolan began to discuss with the team the events of this morning. Tolan explained that they had walked the entire plant observing the processes in play and the interaction with the human capital assets on the floor. He further reminded them about the findings of the Stand in a Circle exercise. He then began by asking the assembled managers some potent questions.

The first question that Tolan posed was how well did they know their organization's processes. Larry Murphy was the first to respond by stating that as the director of manufacturing he knew exactly what was going on, which was why he had some reservations about this whole experiment. Julianna picked up the discussion by asking a follow-up question by suggesting that if Larry knew his organization's processes and who the stakeholders are in the process. Larry asked what she meant by stakeholders. Tolan replied that "stakeholders are those individuals who have an interest in the outcome of the process. You can identify who those individuals are by utilizing a tool we call a SIPOC analysis. In it you begin by identifying the suppliers who fuel the process. With those identified you then determine what it is they supply and to what part of the total process they contribute. Once that has been completed you then look at your processes and determine what their service or product allows the process to serve the end user. In other words, because supplier A introduces part A to process A the process is able to generate output A which delivers to the customer the product they have purchased."

Julianna suggested that the group should take a moment out of their process to construct a SIPOC chart for Morrison Aeronautics (see Figure 7.1). Tolan further suggested that they work in teams of two in order to determine if there was a consensus on the views of the group on the parts of the SIPOC.

After a brief amount of time had passed, Tolan pulled the group back together and asked them about their findings. Larry was the first to ask how

			Costing You			
	Observation	**Category**	**Space**	**Time**	**Energy**	**Money**
1						
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Figure 7.1 SIPOC form.

detailed the list had to be. Tolan responded that "initially the list should include anyone who puts their hands on the process. Remember that the same exercise can be used by the stakeholder's stakeholders. Once you have completed the SIPOC you then can begin to answer the question I posed to you initially, which is how well do you know your processes."

Tolan explained that "we can obtain a better view by now creating a process map (see Figure 7.2). A process map provides you with an eagle's eye view of your organization's processes." Returning to the tour that he

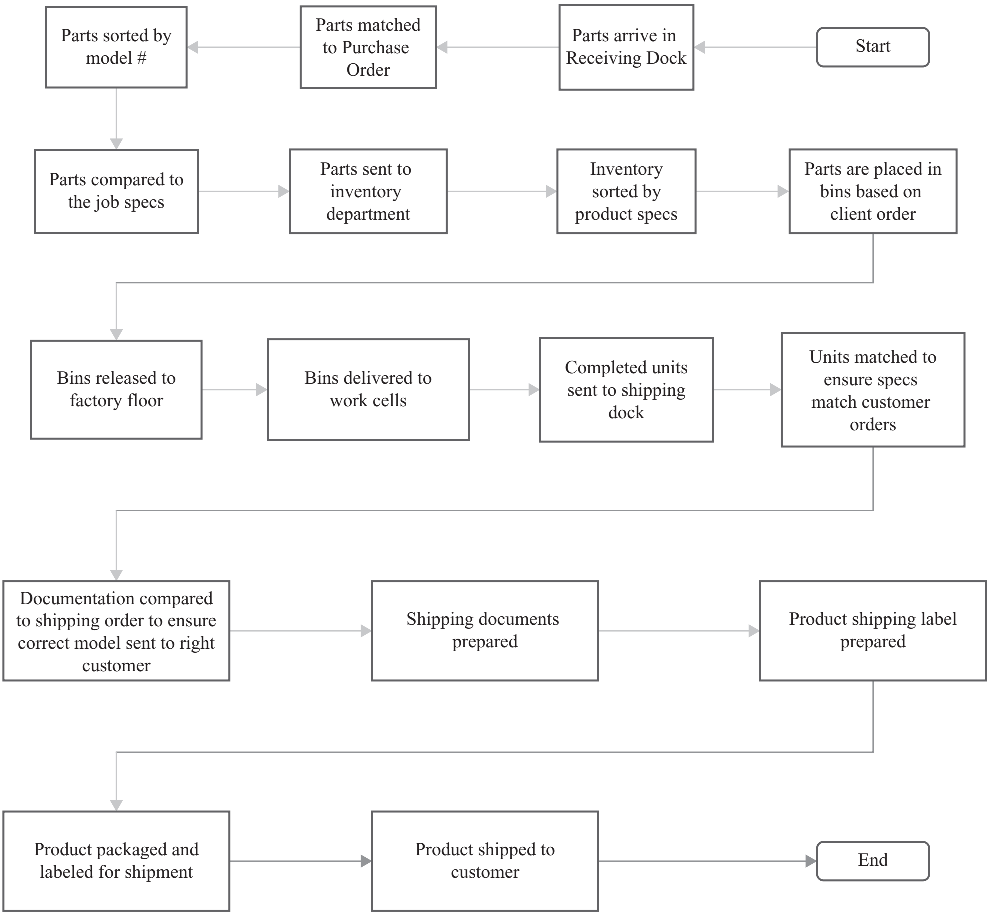
Start
Parts arrive in Receiving Dock
Parts matched to Purchase Order
Parts sorted by model #
Parts compared to the job specs
Parts sent to inventory department
Inventory sorted by product specs
Parts are placed in bins based on client order
Bins released to factory floor
Bins delivered to work cells
Completed units sent to shipping dock
Units matched to ensure specs match customer orders
Documentation compared to shipping order to ensure correct model sent to right customer
Shipping documents prepared
Product shipping label prepared
Product packaged and labeled for shipment
Product shipped to customer
End

Figure 7.2 Morrison Aeronautics process map.

and Julianna had just completed, Tolan walked to the easel pad at the front of the room and drew a box. Tolan explained that each box represents a step in their process and the flow of material to the next stage is shown by an arrow pointing to the next step in the supply chain and finally to the end user. If they go back to their list of stakeholders in the SIPOC, Julianna explained, they can take each stakeholder and create a process map which demonstrates their contribution to the end product. The final goal is to identify the critical few stakeholders that could affect the gyroscope as it moves toward the final product.

George inquired whether it included every step in the process to which Tolan responded that in a perfect world the process map should include all of the steps in the process. With that in mind, Tolan suggested that the team create one for Morrison Aeronautics.

Based on their tour notes, Tolan drew a box on the white board and labeled it "materials arrive at the loading dock." He turned to the team and asked them what the next box should be. After a few minutes, Ann Morrison suggested that the first box should be the arrival of the parts at the receiving dock. Julianna indicated that was a great start but what happens after the parts arrive. George, who had led the tour, said the next block or step should be the movement of the parts to the inventory area to prepare them for building the gyroscopes. Tolan looked at confused at this point causing George to ask if he forgot something. Tolan relied, "Let me see if I understand you correctly. The way you presented the process is that the ordered parts arrive at the shipping dock and then immediately go to the inventory department, is that what you are telling me?" He continued, "aren't you missing something?"

George replied he did not think so. Tolan then asked if Samantha Devlin had indicated any other steps that George missed. George thought about it for a moment, before he remembered that Samantha had stated that the process also included matching the incoming parts to the purchase orders. Tolan drew a second box on the easel pad and connected the two boxes with an arrow running from the first box to the second. Tolan encouraged the group to continue to build out the process map. To keep the process going, Tolan drew a third box on the easel pad and as earlier connected them with an arrow. George suggested that the next step would be that the materials were transferred to the inventory holding area. Again, Julianna asked if they had missed a step. George responded that he remembered Samantha Devlin talked about some kind of quality check on the incoming parts. Tolan reminded the team that your frontline people are your subject matter experts on your processes. They know when something is not working properly before anyone else in the organization. Sarah Effron asked, "What are we checking for?" Tolan replied, "We know that the orders match the purchase orders and we know that the quality of the parts match the specifications. This final check is to make sure we actually receive the right parts." Julianna responded by saying that they have matched the incoming materials to a purchase order that requested 25 pieces of a particular part but when they counted the box contents they were short parts. Tolan drew additional boxes and connecting arrows on the white board.

Larry suggested then that the next step was to transfer the parts to the inventory department. Julianna stated that was correct and Tolan added the appropriate box and arrows to the easel pad Julianna asked Larry what happens to the parts once they arrive in the inventory department. Larry stated that the parts are arranged by job so that the parts arrive on the floor so that they can be used in assembling the navigation devices. Tolan asked Larry how they determined which parts reached the floor at what point in the process? Tolan asked if the parts were sent to the floor in a pull environment or a push environment? George and Larry looked confused and Larry asked what the difference was. Tolan replied that in a pull environment, the parts are sent to the factory floor as the floor says they are needed. In a push environment, and there is nothing wrong with using this approach, the parts are sent to the floor on a preestablished schedule. The problem is that if the process slows down for any reason their can be a backlog of parts sitting on the factory floor.

With the input of the management team, Tolan and Julianna continued to add blocks to the easel pad with connecting arrows until the entire process map was completed.

Once the process map was completed, Tolan asked Larry if he ever completed time studies on the manufacturing floor. Confused Larry said sure everyone does in the manufacturing world. Julianna interjected, "If you take your process map and expand the space between blocks you can add the process times in between each step which converts your process map into a value steam map which will aid your time studies."

Tolan suggested that it was a good time to take a short break during which he asked Ann Morrison if Samantha Devlin could be invited to join the group for the next segment. Michael Merrick, with a strange look asked why they would want to pull someone off the floor to participate in this meeting. Julianna said, "We will explain after the short break."

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Chapter 8

Morrison Aeronautics Brain Trust

Following the short break, everyone returned to the conference room and while she looked perplexed as to what was going on, Samantha Devlin had also joined the meeting. Seeing her perplexation about the reason for her being there, Julianna stated that the reason would be clear in just a couple of minutes.

Tolan walked up to the center of the room and asked the group if they were in his shoes what did they think the next step ought to be? Ann Morrison was the first to suggest that by now she would expect that some sort of solution would be forthcoming. She believed that the purpose of hiring TD Consulting was to provide a solution to the problem that Morrison Aeronautics had brought to Acme Gyroscope's attention.

Tolan responded by saying "TD Consulting never promised to deliver a solution, what we did promise was to show you the way to resolve problems in your processes. Our mission is to empower organizations to lead their organizational change efforts, which includes moving them from fighting fires to becoming solution seekers. It means showing you how to become more inclusive and diverse in the audience that helps you resolve problems. One of the tools we use to achieve this comes from the times of Franklin D. Roosevelt and we call it a brain trust. The concept is founded in the assembly of a group of advisors and experts to help in reaching decisions on a particular issue. If you were actively involved in the military or in sports, you are familiar with the concept but under different terms. Following a military exercise, the team, minus the officers, gather to review the exercise from all aspects. Your sports teams, following a game, undertake the same activity. Its purpose is to look at what went right in reaching the objective. It also looks at what went wrong in the same effort. No member of the brain trust has any greater input than another member. No member of the brain trust can overrule any other member of the group and say we have to do it this way. There are no officers or coaches present to interject their opinions or demands."

Tolan continued, "As part of the control stage of the continuous process improvement process we can benefit from the usage of a brain trust. The process calls for the development of a cross-functional team comprised of the stakeholders of the process. At the end of the process the team minus the managers can come together and review the work of the team in seeking out the solutions that were uncovered by the team. Once again, the intent is to look at the solution-seeking effort from three interdependent perspectives."[1]

"The first of the three perspectives ask us to step away from the Carnac syndrome. We need to get away from looking at the problem that has been presented to us by a stakeholder in the form of a voice of the customer issue and stating that we have the perfect solution. Morrison Aeronautics has told Acme Gyroscope that they are perceiving a problem with the units being delivered to Morrison's facilities. The first perspective asks the question *What is?* We begin with critically looking at what the process is supposed to deliver to Morrison? With the understanding of what needs to be delivered to the stakeholder we can begin to determine the process flow looking along the way for system constraints. Among the tools that can be utilized are the tools that I utilized when I asked you to participate in the Stand in a Circle exercise. The exercise is designed to provide you with some insight into where problems can arise. The identification of the problem presented by the customer must be data-based in nature so that we have some basis for determining the constraints in meeting the needs of our customers. We need to ask some very critical questions to arrive at our conclusions."

"In our deliberations have we considered everything that might be causing the issue? Have we considered that there may be more than one single problem? Have we jumped at the first problem possibility that arose? Have we taken careful steps to look at all options available?"

"Like the sports team, in their brain trust, we need to ask what we did right in selecting the problem and even more important we need to ask what did we do wrong in selecting the problem? Is our problem selection based on data-based evidence or did management determine that it had to be the issue at hand?"

"Once we have determined the exact problem we then need to turn to the second perspective, which is a look at the possible solutions to the problem identified in the *What is* stage. With the concept of the problem in hand, we now turn our discussions to the potential solutions. This part of the process considers the answers to the question *what if*?"

Tolan continued, "I totally get human nature. It is a natural tendency for us to try and find the easy way out of a problem. As managers, we tend to gravitate to the lowest hanging fruit or determine our problem resolutions based on cost—the cheaper the better. We fail to take into consideration such things as total cost of ownership in our purchase decisions. However, what if the low hanging fruit does not actually present us with the ideal solution to the problem at hand? When we begin the process of selecting that ultimate solution, it is critical that we consider all the possible solutions. The primary rule of thumb is that the chosen solution should be the one that comes closest to meeting the voice of the customer. That may be the low hanging fruit, but more often than not. The easy solution may meet your needs, but it may not meet what the customer needs. It is critical that we take that first choice of solutions and investigate whether that was the best route for us to go. We need to look at how we came to the decision to choose the indicated solution. We also need to look at why we eliminated any alternative solutions. What were the factors that made a particular solution better than any other one? What benefits were brought to bear in making any decisions? Which solutions would better meet the requirements of the stakeholders? The team has to approach the discussions with an open mind to all alternatives. One of the key factors in the success of a brain trust is that every member of the trust is treated equally so that their views carry as much weight as the next person. Each person's view of the problem and its potential solutions are based on their particular biases and perspective of the environment within your organization. No one is better than another. No view is more correct than another if you are basing your views on ideas expressed. Each solution needs to be equally evidence-based as we did with the problem identification. With the problem identified and the solution selected we move to the final of the three perspectives, that of *what wows*?"

"We can spend all the time in the world coming to decisions about what the root cause of your problems are and based on evidence-driven metrics arrive at what we think the best solutions are to those problems, but we are not the deciding factor. We are not the king of the universe as to problem solutions. That title resides with our stakeholders. The title resides within the voice of the customer."

"The next step in the chain is the presentation of the various solution options to our customers, specifically the one who had reported an issue with our products/services. Our intent is to get the input of the stakeholders as to whether our selected solution appears to have resolved their issues. Based on their process chain which of the solutions that we have put together makes their process run more efficiently. Once they have had the opportunity to review the identified problem and decided on solutions we need to encourage them to try the solutions in real time to see if the problem is resolved."

"What happens if when they try the solutions the problem is not corrected? At this point your team and the client's implementation team need to come together and review the problem and see if you missed any potential solutions in your review of the problem again. With the input from both teams you need to go back over the available solutions and see if there was something about the discarded options which under new review might hold enhanced possibilities of resolving the problem for all parties."

At this point, Julianna took over the meeting and explained where the process goes from here. She indicated that within the next week, she and Tolan would discuss how to present their findings to the two organizations. The options would be a video conference call or bring the entire teams together in one place to discuss the results. Once again, they may not present a single solution but rather discuss with both teams on how to go about seeking out solutions to their organizational issues.

Tolan turned to the assembled management team at Morrison Aeronautics and asked if there were any further questions. Ann asked if the efforts that were undertaken today were typical for most problems that might be found within the organization? Julianna responded that there is no such thing as a typical way to resolve an issue. Each and every problem will be resolved via the same tools of inquiry, but the wide range of solutions will differ depending on the nature of the defects.

Tolan thanked everyone for their commitment to the process today. He expressed appreciation for their willingness to step out of their comfort zone to consider a different method for resolving issues that have arisen in their organization.

Following the adjournment of the brain trust, Julianna and Tolan followed Ann Morrison back to her office. Tolan asked if it would be possible to set up a conference call with Richard Jones. Ann asked her administrative assistant to see if she could get Richard on the phone. A few minutes passed and the phone on Ann's desk rang. Ann answered the phone and Richard Jones was on the other end of the call. Ann asked Richard if she could put him on speaker phone. Responding affirmatively, Ann moved to the conference table in her office and put the call on speaker phone. Tolan said hello to Richard and explained to Richard what had taken place at Morrison Aeronautics, which was similar to the events at Acme Gyroscope. Almost simultaneously, Richard and Ann asked what the next step was. Julianna responded by saying that there were two routes they could go in. The first was that they could set up a video conference with both teams to hear the results from TD Consulting's actions over the past couple of weeks. The other, and Julianna believed to be the best option, would be to find a location halfway between the two plants and have a joint meeting where the two teams could meet each other, gain their thoughts about the process, and hear the results in real time. Ann and Richard both liked the sounds of option 2 and said they would make the arrangements and get back to Tolan with the details. Tolan said that was fine but reminded them that time was of the essence, so they should not put off the meeting too far into the future.

Note

1. The SIPOC template is developed by Bright Hub Project Management and is a free download from their site https://www.brighthubpm.com/templates-forms/6179-ten-free-six-sigma-templates-you-can-download/#imgn_6

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Chapter 9

The Perception and the Reality

For several days following the Morrison visit, there were numerous phone conversations between Richard Jones, Ann Morrison, and the staff at the two companies and TD Consulting. The general consensus was that it might bring a new dimension to the discussion if we brought the two project teams together. Tolan Daniel suggested that to minimize the costs involved they might want to identify a location that is at the mid-point between the two facilities to lessen the overall cost of the travel to the meeting. With a general agreement, Ann and Richard began the process of finding a location for the meeting and issued invitations to their respective team members to attend. The only pushback came from Arnold Levick, who still was not convinced that this exercise was worth the time but agreed to attend just to see what the ultimate outcome was from the two visits.

On the morning of the meeting Tolan and Julianna arrived in the conference room early to prepare for the day's meeting. They placed in front of each chair several documents which would lay the basis for the meeting's agenda. Once the task was completed they sat down and waited for everyone to arrive.

Once the start time came everyone arrived on time and Tolan and Julianna moved to the front of the room to facilitate the meeting. Tolan began by welcoming the team members to the meeting and laid out the roadmap for the day's meeting. Tolan then explained the purpose for today's meeting was to discuss what was uncovered during the meetings with both organizations. He reminded both teams that he and Julianna were not here to provide them with the solution to the problem but rather to show them how to become active solution seekers. From there he let the group know that they had a lot to cover today and if the group as a whole felt they needed more time TD Consulting was willing to extend the meeting to a second day.

Tolan told the group that the process began because Ann Morrison had called Richard Jones and informed him to the best of her understanding the products produced by Acme Gyroscope were for some reason causing problems with the products produced by Morrison Aeronautics. In turn, Richard, through Robert Ellred, reached out to TD Consulting to try and resolve the problem. We told Richard and Robert that we could do that but under certain ground rules, which will be discussed later in this session.

The process began with Richard asking his management team to conduct Ohno's Stand in a Circle task prior to us becoming involved in the process. Tolan further explained that once they were brought into the situation they had taken the management team through a series of tasks to try and first identify where the problem was situated and second to arrive at suggestions for solutions. That process involved understanding the process flow from beginning to end.

They then conducted a meeting and tour of Morrison Aeronautics where they completed the exact same tasks in the same order. The purpose of this methodology was to in essence set up a control model to see if the results differed to any degree. The purpose was to see whether, other than specific unique process steps that were part of one or the other firm's process, there were anything out of the ordinary in the production process. Julianna interjected that from what they could see there were no steps that were out of alignment. What they intend to undertake today is the development of a roadmap which both companies can take forward with them to resolve future problems.

Tolan continued to explain the roadmap for the rest of the time they were together. He began by stating, "Our goal was to walk you through the two tours and let each of you get used to the individual processes. We would do this by comparing each other's process maps. Following that we want to spend some time discussing why continuous process improvement efforts work or don't work."

Tolan then turned to the process that was used by both organizations to try and identify the problem. "If you remember the first thing I asked was to take me on a tour of the individual facilities. We did this to gather information and to understand the material flow from your receiving dock to your shipping dock and all the stops along the way. We wanted to be able to understand where obstacles might hinder the smooth flow of materials to the factory floor as they were needed." Tolan continued, "Neither team recognized anything substantial; however, the Morrison team did find some processes that were running slower than they should have. From what Julianna and I could observe this would not be the cause of the gyroscope failures. It is also important to understand that even a minor flaw could disrupt the process."

Julianna took over by stating that the next step was to take the results of the tour and show them graphically in a tool which she referred to as a process map. Mike Rother and John Shook, in their book *Learning to See*,[1] say that the process map represents all the actions currently required to bring a product from the receiving dock to the customer or end user. "We asked you to complete those process maps because we wanted to see if you had a clear picture of that flow in your organizations." Julianna noted that in both tours, a person working on the receiving dock pointed out steps that the members of management overlooked.

Tolan turned to the assembled teams and asked if there were any questions to this point. Arnold raised his hand and stated that while he was not as skeptical as he had been, he wondered what the value of the process map might be outside of the manufacturing process. Tolan responded that "as we will see later when we look at the process blueprint, the steps pertain to any process. Your goal is not the results but how you get to that result. Again, I am showing you how to be a solution seeker and not just a problem solver. We simplified this somewhat because we asked both teams to do the same tasks. So, you were both working with essentially the same data just skewed for your individual data points."

Tolan asked the participants to take the first two sheets from the stack of papers in front of them and place them side by side. Julianna then said what they had in front of them were the two process maps that they had completed. The only area where there may have been some concern was that Morrison was using a variety of gyroscope models and there could have been the opportunity to substitute the wrong model in some Morrison products. In essence, the process maps provided Acme and Morrison are designed to see if there were any variations in the processes. Tolan then reiterated to the group, as he had in the individual meetings, that these process maps can be utilized for time studies of the process by inserting the time duration between each step. We call this converted process map a value stream map. It points out the effect of each step on the total process.

Julianna then explained that in any process they are faced with two groups of individuals that affect the ultimate outcome. It applies to every change management process. Julianna began by explaining that the first group were those individuals who see a problem.

The American theoretical physicist Richard Feynman stated that "I cannot define the real problem; therefore, I suspect no real problem, but I am not sure there is no problem."[1] This first group understands that no process is perfect, but they don't see the problem. They do not recognize that the problem confronted by Morrison is causing a problem because they don't see any effect on the organization bottom line. Tolan interjected that their reasoning for not seeing the problem and its effects can be narrowed down to several primary reasons.

"The first reason is that their understanding is that from what they have heard or read over the years of training, process improvement is only for manufacturing processes. Remember that we are talking about how to resolve problems and not the actual solution. This methodology we are going to be discussing applies to any problem within your organization. It applies to the supply chain as well as the finance area. It applies to the supply chain as well as the human resource area. It applies to the supply chain as well as the sales and marketing area.

"The second reason expressed by this group is that 'We tried that, and it did not work.' It is correct that you may have attempted to resolve issues in the past using problem-solving techniques. The difficulty is that you may have been looking for the wrong thing. If you entered the problem-solving mode with the belief that you were going to find and solve a problem your focus may have been in the wrong place. Remember we are seeking solutions and not the final result."

"The third reason expressed by the group is that the methodology is too complex for most organizations. The methodology can be as easy or hard as you want to make it. You do not have to be a Ph.D. or a statistician to make the system work for you. If you know how to record data, you can make the system work with the help of some inexpensive software programs like QI Macros. If you don't know how to record data points it is relatively easy to learn how to do so."

"The fourth and final reason usually expressed by this group is that the solutions uncovered by the process effort is not how we do things around here. Our organizations have to a great degree inbred culture. Like Acme Gyroscope, that culture has been handed down over decades of family ownership. This is neither good or bad, but it does present a problem when resolving issues that confront the organization. When we are seeking solutions from multiple sources it is possible that some of the suggestions are going to conflict with the organization's norms. The usual response from the members of this group is that we can't do that because that is not the way we do things here. The suggestion, while truly valid, does not meet the corporate norms. But remember it is possible that those organizational norms may be the reason you have a problem in the first place."

Julianna took direction of the group to explain that the "second group are those individuals within the organization, and there is always someone who not only sees the problem but feels its effects. It is these effects that lead the organization to create the new normal and thus the new corporate culture. The second group are the ones that carry the change management process forward to the next step. Let's break these components down further so that we can gather an understanding of their interdependence with each other."

"The first segment is seeing the problem. Through some vehicle a stakeholder exercising their voice has come to you and said, 'Houston we have a problem.' With that action you have an obligation to find out what that problem is, how it impacts your organization, and what it means for the future of business with the stakeholder. The goal is for you to vividly see the problem as it exists. We gather that knowledge by utilizing the steps that you have undertaken in exploring Morrison Aeronautics' concerns about Acme Gyroscope."

"With that knowledge firmly in place, the next step is to explore how that issue affects the process of building gyroscopes. Is there something in the problem that adversely affects the stakeholder? Is there something in the problem that adversely affects your organization? In order to be viable that affect must be one that can be felt. It must be able to emit an emotion for the rest of the supply chain. How does it make the parties feel when they try and use the product that is based on that problem? How does it feel to the stakeholder when they are delivered your product and it is not up to the quality they expected? How do your human capital assets feel when they are told they have to remake a product because it did not meet the product specifications?"

"The final part of the process is what you do now that you have this information. With the knowledge of what the problem is and how it affects your customer, you are now confronted with a needed solution. That solution is going, in every case, to require you to create a new normal. You need to create a new work culture that accepts the issues generated by the problem and take steps to remove these obstacles."

Tolan stated, "The rest of our time together will be centered around how to implement the process in any situation whether it is on the factory floor or in the front office."

Note

1. Reprinted by permission from *Springer Nature: International Journal of Theoretical Physics*, Simulating Physics with Computers, 1982. Page 471.

Chapter 10

The Path to Creating the New Normal

"At this point I need to create a feedback loop with the group," Tolan said. "We have undertaken an investigation into a complaint by Ann Morrison, representing Morrison Aeronautics, that some of the gyroscopes coming from Acme Gyroscope do not meet the specifications of the product as detailed by Morrison when the contract was signed with the company." Tolan asked Ann Morrison if so far they were accurate in the assessment of the environment. Ann replied that was her understanding when they began the process several weeks ago.

The first step in the change management effort then is to attempt to identify the problem. Tolan then asked whether the team was able to identify the problem. The other part of the feedback loop Tolan wanted to know is what the teams thought about the process to this point.

Arnold Levick, who had been a skeptic from the start, was the first to respond. Arnold said: "in the past, when we had an issue we always took the obvious route to identify the solution. We believed that the cause of the problem was always in plain sight." Arnold continued stating that "the past couple of weeks has shown me that that approach might not be the best in the long run, since the problem might not be an obvious one considering we have not so far seen a definitive answer as to what is wrong in the process." Tolan told Arnold he was glad that his focus had changed. He continued, "It is true that sometimes we can find the solutions in plain sight. But more often than not we need to dig a little to find the root causes of the problems we are confronted with."

Tolan asked if anyone else had any thoughts. Richard Jones offered the opinion that he did not appreciate, while his father was running the company, how the voice of the customer impacted their operations. It had been the culture of the Acme Gyroscope organization to keep issues such as the Morrison Aeronautics problem close to the vest of only top management and not shared with the organization or asked for input from the frontline employees. Larry Murphy stated that "I still did not see a solution to the problem that brought them together in the first-place reiterating Arnold's point." Julianna interjected that in part that might come from, with the exceptions of Joanna Jefferson and Samantha Devlin, the team trying to resolve the issue were all from top management. The result being that they were lacking the input from the subject matter experts. She went on by saying that in order to continue their search for a solution they needed to go back and create cross-functional teams comprised of frontline employees from both facilities to see if they could find the solution.

Tolan continued by saying, "let me lay the ground work here before we begin looking at the entire process. You have been involved in a system we refer to as the TLS Continuum. It is a system whereby we enable the organization to see the problem, feel the problem and make the necessary changes to your organizational culture to ensure that the problems go away, at least in the short run." Arnold asked what Tolan meant by the short run. Julianna responded, stating that "when we remove one constraint or obstacle within three to six months the system brings to the forefront an additional constraint, requiring you to start the process over again."

With the questions answered, Tolan indicated that they had a lot to cover today so they should explore the basics of the TLS Continuum. "The TLS Continuum is based on several assumptions, and I know the dangers of assumptions but bear with me," Tolan said. "The TLS Continuum assumes that our business environments are whole self-contained systems.[1] The *Theory of Constraints Handbook*[2] defines a system as a system which contains inputs, a process of some kind, outputs, and an environment in which they exist." Tolan asked if this sounded familiar to anyone. Ann Morrison raised her hand and said it was similar to the SIPOC form they had completed before this meeting. Tolan said that was correct and he continued with his explanation. "In the TLS Continuum the acronym corresponds to the three steps in the solution-seeking process. The 'T' stands for the Theory of Constraints (TOC). Created by Dr. Eliyahu Goldratt in his book *The Goal*, it is a critically thinking-based system for determining where the obstacles or constraints lie within your processes. It is important to note that the constraints could exist either at Acme or Morrison or both. Remember the team noted at Morrison that the system was running slower than it should, which could indicate the presence of a constraint. Through the use of various tools, it asks you to determine where those constraints are in the process. The sole purpose of the TOC involvement in the continuum is to determine what needs to be changed, how to change it, and how do you accomplish the change. The Theory of Constraints operates at the level of the supply chain looking for the weakest link." Julianna interjected at this point "that was why we asked for the tour of your respective plants. We were looking at the supply chain and the flow of materials to see where the system might be holding up. The process map is a graphic display of the supply chain." Tolan continued by explaining that "the TOC is in essence the problem-solving method overall."

"The 'L' in the continuum represents the steps to make the system leaner. Most organizations are familiar with the concept of lean. Its purpose is centered around removing wastes from the organizational processes so that the customer receives their orders faster. Your supply chain constraints represent this waste. Be careful about putting all your eggs in one basket. If you use only lean you are actually baking a third of the pie. Understand that faster does not mean that we are delivering the customer orders cheaper or of better quality. It only means that we have expedited the process."

Tolan continued by discussing the final letter of the continuum. "The 'S' in the continuum refers to Six Sigma. The primary goal in this stage is to remove variation in the processes and create a standard of work. Thus, if we combine the three letters we create a process, which locates and identifies the constraints, we then remove those constraints and create a standard of work going forward. The approach answers the questions what is holding up the process and where is the weakest link in the process. We saw that in the piping diagram you saw at the beginning of our time together. The TLS Continuum provides an evidence-based effort to identify, remove, and improve the system so the problem does not reoccur. This does not mean that we will not identify other constraints as you move through the supply chain because you will."

Julianna then posed to the group a question. How does this apply to the Acme Gyroscope/Morrison Aeronautics issue? Julianna said, "Let's take a moment and look at that."

Tolan suggested that "the easiest way for us to gain an understanding of the process is to walk through a generic problem-solving exercise. Along the way you might see steps we have taken over the past several weeks."

"The initial step in the problem-solving process is to create a cross-functional team who will be charged with seeking out solutions that will provide a satisfactory response to the issues that the problem presents to the organization. The team needs to be comprised of your subject matter experts who know and understand the product from the front-line level. The team is not a management activity, it is a stakeholder activity. The members of the team should represent all the internal functions who have a role in whether a particular process is successful. This means the people who control the purse strings such as finance and procurement. This means the people who are involved in the sales of your product to outside customers. This means it would be prudent for you to include representatives of your major stakeholders external to the organization. It means that your major customers who utilize the product in question should have a seat at the table. You may have a member of the team who is from management, but their function is to be the champion for what the team proposes, not to dictate the way the team functions. The critical factor here is that at the end of the day the team members must feel safe and comfort table to express their thoughts and ideas about the nature of the problem and its solutions without fearing that the organizational management will take actions of retribution against them for expressing those thoughts because they are trying to protect their turf and don't like the suggestions." Almost at the same time, Samantha and Joanna raise the point that in their respective organizations they were often overlooked for their contributions. Julianna responded by indicating "we are talking about a new corporate culture. We are looking at the organization working as a team and not a serfdom."

"Once the team is in place the next step is to commence a brain trust meeting. The purpose of this meeting is to answer several pointed questions. First, do we have the necessary resources represented on the team to resolve the problem? The second question is whether the team is comprised of the right human capital assets. Working on cross-functional teams requires a certain mindset. If the mindset is absent that team member will be a hindrance to the team effort."

"The next step in the process chain must be the understanding that the cross-functional team needs to have full access to the full supply chain at both the internal process and those of the customers who utilize the end product. It is possible that you are going to look at the supply chains before they reach your facility and after it moves to the end user. Remember when you were completing the SIPOC form we mentioned that the form was a snapshot of just your part of the chain. There are similar SIPOC forms for your suppliers and for the end users and who they deliver products to. It is also critical that you realize that time is of the essence when trying to resolve these issues, so management needs to set aside ample time for the team to do its work. Procrastination is the death knell of any change management effort. GE, with their workout program, expected a resolution to the problem being studied to be done in 90 days. You need to approach these issues or problems with the understandings that you can't put off making the hard decisions."

"After you have completed the review of the supply chain you should again have a brain trust meeting. Different from the cross-functional team meeting, this one needs to focus on two points of view. First, did we map all the steps? Second, did we leave out any steps and why did we omit them from consideration?"

"With the process maps in place, we need to begin to identify the stakeholders in the process, which means that we need to go back and look at our SIPOC forms once again. We want to see if the process map and the roles of the stakeholders are providing any insight into where the problem is. Remember from our individual meetings we discussed a three step process to respond to a problem presentation. The first is *what is the current state of the process*? Ann Morrison has told Richard Jones that there is a problem. What is the problem and how does it manifest itself? What are the effects on the supply chain? Go back to your high school days and remember the discussion of the first step of the scientific method. You created a hypothesis by determining your variables. If these conditions were not present does the problem still exist? If we changed this step does it change the playing field? From the answer to these two questions we can formulate an idea of what the problem is."

"Once we have created the hypothesis or problem statement we once again hold a brief brain trust session. As with the previous brain trusts we want to ensure that we have selected the right problem and understand why other potential problems were eliminated. You want to question if you had to go about selecting the current problem again would you use the same process" (Figure 10.1).

"The next step in our generic path to improvement," Tolan continued to explain, "is to begin the collection of data points from your process that will demonstrate for the team how the process is functioning. We want to look for data points that show the process is not functioning the way it was intended to. We then want to analyze the data points for their relevance to the problem at hand."

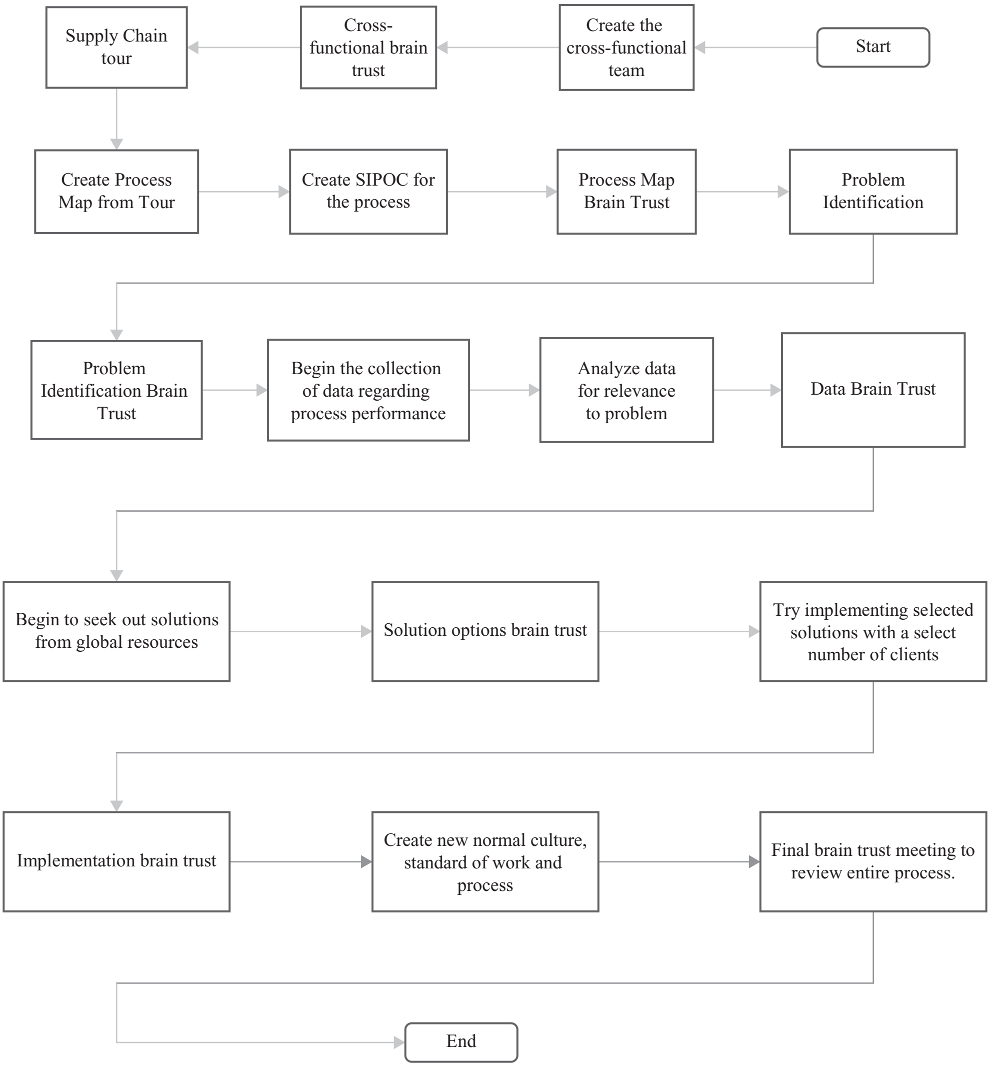
Start
Create the cross-functional team
Cross-functional brain trust
Supply Chain tour
Create Process Map from Tour
Create SIPOC for the process
Process Map Brain Trust
Problem Identification
Problem Identification Brain Trust
Begin the collection of data regarding process performance
Analyze data for relevance to problem
Data Brain Trust
Begin to seek out solutions from global resources
Solution options brain trust
Try implementing selected solutions with a select number of clients
Implementation brain trust
Create new normal culture, standard of work and process
Final brain trust meeting to review entire process.
End

Figure 10.1 Path to improvement.

"As in the other stages we have already described," Julianna pointed out, "you want to conduct a brain trust to determine whether you collected the correct data points. Particular attention should be paid to whether the process generated the correct data points. You need to consider whether you discarded a data point that should have been included to more accurately assess the problem."

"With the problem identified and the data points selected we can then turn to seeking out solutions. You want to begin with a macro view of the problem and gather in as many suggestions for solutions from as many sources as possible. This should include both internal and external sources.

Do not be afraid of having the team go out to social media and tell the world you have a problem and ask for suggestions on how they would resolve it.[3] This is the *What works to resolve the issue at hand* stage of the process we talked about in our meetings. Look at the problem and all the available solutions. Deep dive into the solutions to see their impact on the problem. Of course, in looking at solutions you want to delete any solutions that don't have any direct effect on the problem."

"When you have narrowed down the solution suggestions to the vital few, go out to your stakeholders, especially your major ones, and try and implement the suggested solutions. Let them try the solution and see if it corrects the issue. Obtain feedback on what works and what doesn't. If the solutions do not work, go back to the drawing board and try other solutions. As with the other stages you want to hold an implementation brain trust again to review what worked, and what doesn't work."

"The final stage of the process is to take concrete steps to create the new normal. Carefully consider how you are going to change your operating procedures to reflect the new way of utilizing the process going forward. Put into place the procedures with the accompanying training and communication plans so that the entire organization buys into the new way of doing things. Part of this final step is a gathering of all involved in the process to conduct what the U.S. Navy calls a hot wash; some organization's call this an after the action review. Whatever nomenclature you use its purpose is a grand brain trust. As stated earlier, its purpose is to review the process of resolving the problem at hand. Typically, you want no managers present. You want to concentrate your emphasis on several areas. First you want to look at the entire process improvement effort and ask yourselves what was expected to happen. Why did you expect that outcome? If the outcomes are not what you expected why was there a difference and what contributed to the outcome?"

"The next area of concern for the brain trust is what worked in your exploration of solutions. If for some reason a solution process did not work what caused the difference? Finally, the critical question must be asked if you had to do the whole process over again what would you change in the process and why."

At the conclusion of Tolan's remarks, Julianna offered one final thought to the assembled team. Julianna said, "Over the past several weeks we recognize that we have put you through a lot. Many of the things we asked you to do were hampered by the fact that this group was not a truly cross-functional team because with the exception of Joanna and Samantha the subject matter experts were missing." She continued, "this is a very dynamic process that will work for any organization no matter its size or business. Further, it changes the way you look at your human capital assets, your organization and its customers. It emphasizes total involvement of all parties into the ongoing change management efforts."

Following the completion of Julianna's comments, Tolan turned to the group and asked for assistance on one further piece of business. He said, "In the beginning of the process we asked you for introductions. Now he indicated what he needed before they brought this process to a close was an expression of the thoughts of those involved, sort of a brain trust for the process that they had gone through over the past two weeks."

Joanna Jefferson was the first to speak up. She said that this was the first time in her time working for Acme that her views and thoughts were ever listened to by management. She also indicated that before this she never realized that what she did was an important cog in the sales of the products the company makes. It gave the ability to have greater insight into the whole process of the company. Samantha Devlin expressed agreement with Joanna's sentiments.

Arnold Levick was the next one to express his thoughts. He began by saying "as you all know in the beginning I was very skeptical of the whole process. I thought I understood my role within this company and had no concept of how everything fit together. My only regret is that so far I have not seen TD Consulting tell us that here are our problems and how do we solve it." Julianna reminded the group again that TD's role in this process was not to bring them solutions but to empower them to seek them out from their partners in the process.

Ann Morrison, seeing a lag in comments, said she greatly appreciated the work of TD Consulting. "My view when we entered into this was that the solution to the problem we were experiencing was just a simple tweak. It is apparent to me now that resolving these issues is not a simple tweak, but rather the willingness to totally change the way we look at our organizations." Richard Jones seconded her thoughts.

Julianna completed the day's work by stating that it had been a pleasure working with the two organizations and that if they ever needed additional assistance feel free to reach out to TD Consulting. With that the meeting broke up and everyone went off to their operations with a new insight into how to change their operations to resolve the problems that faced them.

Notes

1. The Whole System concept was developed by Dr. Lawrence Miller of L.M. Miller Consulting. https://www.ManagementMeditations.com
2. Cox, James F III and John G. Schleier. *Theory of Constraints Handbook.* New York, NY: McGraw-Hill, 2010. Page 552.
3. *New Power* is written by Jeremy Heimans and Henry Timms, published by Doubleday in 2018.

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Chapter 11

Partial Solution(s)

In wrapping up the meeting, Tolan reminded the group that “the role of TD Consulting over the past several weeks was to help you understand how to seek out solutions to problems that arise in your organizations. While we still are not going to do your work for you in determining the solution to the issue brought to the forefront by Ann Morrison, here are our views on a possible range of solutions.”

Having said that, Julianna continued that “the range of solutions we see might lead to a conclusion as to the source of the problem. The first suggestion deals with the observation during the Morrison tour in which they stated that the process was flowing slower than it should.” Tolan said, “one of the reasons for processes to run slower is that the material flow is off the track. I asked you earlier whether the flow of materials was based on a pull or push environment. The ideal flow is where the materials needed are pushed out as they are needed. So, the possible solution is to determine a schedule of material flow that does not hold up the process.”

Tolan continued by stating that “we could not rule out human error. With a large number of different gyroscopes coming in, it is possible that the wrong model was picked up and put in the wrong bin for the wrong client. The remedy would be to institute a more confined control system when checking in materials to the process.”

“Additionally, it is possible that the gyroscopes built by Acme Gyroscope may have had less than quality standard materials in building the gyroscopes. The remedy would be tighter quality standards.”

“The final suggestion centers on the method in which pressure is applied to the gyroscope. Our understanding is that the level of pressure applied to the top and bottom of the gyroscope determines how fast the wheel spins. With that in mind another problem might be measuring the degree to which pressure is applied to the gyroscope and see if the degree of pressure changes if you adjust the impact of the pressure points."

Julianna concluded by stating that the proper way to resolve which option is the true cause of the issue is to formulate a true cross-functional team and give them more time than a day to study the process flow in order to identify the key factors behind the problem. Get the people on the front line to have ownership of the process. Get the people on the front line engaged in the future way the processes operate.

Chapter 12

And the Story Is Told

> *I have always had a horror of words that are not translated into deeds, of speech that does not result in action.*
>
> **—President Theodore Roosevelt**

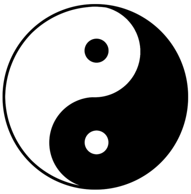


Figure 12.1 The Ying Yang Symbol.

The corporations and characteristics contained in this story have been changed to protect the innocent. There are no such companies named Acme Gyroscope or Morrison Aeronautics in existence as best we know. The story contained above does not hinge on the existence of either corporation. Nor does it hinge on individuals with the same names as my existing characters.

What the story does is carry the purpose of relaying the premise about what happens in many corporations on a global basis every day. According to Quora.com, the Chinese symbol shown in Figure 12.1 “holds its roots in Taoism/Daoism, a Chinese religion and philosophy. The yin, the **dark** swirl, is associated with shadows, femininity, and the trough of a wave; the yang, the **light** swirl, represents brightness, passion and growth.”[1] The implications of the symbol can be found in our pursuit of reality vs. perception.

The shadow side of the symbol represents the perception side of the discussion. Perception is hidden in the belief that while there is or may not be a problem, it is better to avoid the idea. Perception is grounded in the Richard Feynman quote from earlier. The perception says "I cannot define the real problem; therefore, I suspect no real problem, but I am not sure there is no problem." The perception side views the organization and sees no drop in revenue and no drop in new orders so therefore there can't be a problem.

The growth side of the symbol is represented by the new culture. A new culture in which the three pillars (customer centric, organizational alignment, and total quality management) of the TLS Continuum come into play. The pillars establish the basis for quality management efforts in any organization no matter their size.

The bottom of the first three pillars represents the process systems being centered on the needs of our customers. The primary idea of the story above is that the purpose of the methodology is based on a problem-solving strategy to resolve issues within the workplace. The problems have their basis in unsettling feedback from our customers that the service or product that we deliver is not meeting what they agreed to pay our organization for. The problems begin with scenarios like the Ann Morrison call to Richard Jones. The crux of this is the voice of the customer. The voice of the customer is important because in this current global workplace they are free to take their business wherever they want, whenever they want. To avoid this occurrence, we need to find where the key performance indicators are not being met from the customer's perspective.

There is, however, a disadvantage to the voice of the customer. The disadvantage is that the usage of this tool usually arises when the organization has a client who expresses some dissatisfaction with the organization. The organization is thus focused on the wrong mindset.

By its very nature voice of the customer is retroactive in nature. It is in response to a problem. The difficulty is that we are anticipating what the customer wants and then reacting to the problem after the fact. Your organization scrambles to find the quick solutions to the problems before you have a mass exodus.

While the use of the voice of the customer matrix is a critical and a necessary component of the methodology it does not go far enough. We have to go beyond the matrix to reach the Center of Excellence status. Becoming customer centric means a more concerted effort on the part of the total organization. To become customer centric, we need to begin those cultural changes hinted at earlier.

Instead of responding to customer requirements in a reactive manner we need to change our approach to becoming proactive. The information gathered from the interaction with the customer has to place us in a position of being able to have insight into the total organization. The organization needs to learn how to empathize with the customer, learn their business and the challenges they face. The cross-functional teams need to take those challenges and be able to seek solutions before they become critical problems occupying vast amounts of time of your human capital assets to correct problems. You want to stop becoming the organizational fireman.

To fully commit to the Center of Excellence model there is one more level that we have to obtain. It is important as stated that we truly hear the voice of the customer. It is equally important that we change our modus operandi to being proactive in trying to get a jump on the non-value-added issues before they reach critical points of no return. All of this effort is for naught if the change of culture does not become embedded within the organization.

The final tier in the customer centric model is that this change must become the corporate mantra. For it to become the corporate mantra, it has to become embedded in everything the organization does. The mantra is part of our corporate brand. It is part of our mission statement. It is part of our corporate values. It is part of our image delivered to the marketplace. It has to be the tacit understanding that this is the way we do business because our customers demand that we do it this way. If someone can't work within the new environment, then they either need to get trained or leave the organization. The entire process will come to a screeching halt if one department decides that the old way is better and continues to be reactive instead of proactive going forward. A perception view of the environment needs to be discouraged in clear terms.

The second pillar is the alignment of the organization; alignment with the corporate mission, values, and organizational goals. Every organization either in writing or implied has a mission, vision, or operating statement which delineates their corporate culture. The corporate culture tells the world who we are and what we stand for. The combination of the corporate culture and the voice of the customer are the keys to your organizational alignment. This combination, however, is unique to your organization. You can't go down the street to your competitor and find the exact same cultural components. The corporate culture is so unique that benchmarking will be of limited value. We need to begin by establishing a clear view of just what our organizational culture is and the role it plays within your organization.

An organizational corporate culture is defined in two separate but interdependent views. The first is what currently exists in the organization and what needs to be added to the organization for future sustainability. The final corporate cultural structures are determined by the corporate statements referred to above as to what the organization stands for, believes in, and the role they play within the community. The cultural elements are then handed down through the corporate hierarchy by top management. In the long run the corporate culture explains how the human capital assets are valued within the organization. The culture determines whether your organization becomes an employer of choice in the global workplace. The final tier in organizational alignment under the organizational alignment is total and complete buy-in from the organizational components to the point where it becomes the walk and the talk. The message coming out of the organization should be the same no matter who is speaking it – the CEO or the clerk in the mailroom. Think about the parrot who is speaking – the message will sound the same. It comes from continual practice and repeatable actions.

The final, but not the least important quality, is the influence of quality management within the model. If we change the corporate culture or believe that we have and still continue to make errors in delivery we have not achieved anything at all. Ford Motor Company has adopted the statement that "Quality is Job One." It has become not only their goal but part of the corporate mantra. What we are seeking are employees who on a consistent basis are aware of the organizational processes and how they are operating. They are completely embedded into the process success and are the first ones to report when the system is breaking down. In the Jeffrey Liker books, he refers to the *Andon System* in which any human capital asset has the ability to stop the process if it does not meet the established quality standards. In essence the commitment to quality management means that when employees see a problem within a process, they not only have the authority to report it, they also have the responsibility and authority to fix the problem then and there. If that means stopping the process until the problem is corrected then that is what happens.

The corporations and characteristics contained in this story have been changed to protect the innocent. There are no such companies named Acme Gyroscope or Morrison Aeronautics in existence to the best of our knowledge. The story contained above does not hinge on the existence of either corporation. Nor does it hinge on individuals with the same names as my existing characters. What the story does hinge on is the dichotomy in our organizations each and every day. Quality or some derivative of the idea is espoused by corporations at every turn we take. Facebook recently reported that one corporation's annual report stated that it was setting a goal of a certain number of belted quality experts and that total quality management was a basis for the corporate mission statement.

Perception has a clouded view of the world. To them they don't see a dire problem. The direct result is that there is no pressing need to respond to the problem. Yes, we have a problem but there is no pressing call to action. Orders are not being cancelled. Bottom line is not being adversely affected. Sales are still being made. There is no reason why we need to address forced changes to the way we have always done things in this organization. This is especially true in organizations like Acme Gyroscope, which is a family-owned organization. They are very slow to make adjustments to what they perceive as the process that grew and keeps the organization running. A fellow quality professional has referred to this as cognitive dissonance. On the one hand our organizations believe that everything, at least on the surface, is fine. But underlining the belief are situations that unhinge our balance and harmony, situations which left unchecked can cause severe problems for the organization going forward.

Cognitive dissonance theory, originally studied by psychologist Leon Festinger, believes there are two views of choice for an organization. The first view is that the organization has an inner sensor which tries to keep their behaviors and their views of the world on an even keel. It does not like change. In fact, change is to be avoided at all costs.

The dissonance begins when we have issues that disrupt the balance and harmony. The result is we need to bring things back into balance and harmony by making changes to the culture we thrive in.

The second view is the reality view, which are those organizations who have listened to the voice of the customer. They see the same complaint coming from the customer but instead of essentially ignoring it, they have taken steps to see the nature of the problem. Once they have identified the problem they then consider and determine the exact effect of the problem on the organization. By doing this they move to make changes to the new normal within the culture.

The title of this book, *Reality, Perception, and Your Company' s Workplace Culture: Creating a New Normal for Problem Solving and Change Management,* lays out the roadmap for moving organizations from a state of perception to a state of reality. As we presented, the state of reality forces changes to the entire environment of the workplace. The role of the human capital assets changes. They are no longer just expense items but individuals who have a vital role in the organization. The reality state is based on the front-line subject matter experts having the ability to first, take part in the determination of the problem, and second, to take ownership of the process. They implement the process not because they have to but because they want to. They understand what their role is in the total picture presented by the processes. The result is that they become engaged in the process. They must have the ability to stop a process in its tracks if they sense something is not right. This only comes when the entire organization understands the supply chain flow from the beginning to end. We asked Acme Gyroscope and Morrison Aeronautics to gain that understanding by creating the process maps and the SIPOCs. This only comes from the entire organization changing their focus to one of total quality management. Everything you do and say has to have at its root the desire to do things right the first time and eliminate the opportunities for rework. The roadmap forces you to take the opportunity to advance your organization by proactively going after problems rather than being the industry fireman. The roadmap forces you to make the necessary changes to bring the organization back into balanced keel both behaviorally and attitude wise.

Reality and perception are two sides of a coin. Depending on your circumstances neither is worse than another. But the only way for us to make changes to the organization which empower them, to engage the human capital assets, is to move from the perception side of the coin to the reality side of the coin.

Note

1. https://www.quora.com/What-is-the-meaning-of-ying-yang-symbol

Acknowledgments

Over a decade ago I began a journey. It was not a journey of self-discovery. It was not a journey to some specific place or time. It was a journey into the reasons why some of our processes were not as smooth running as we would like. It was a journey to explore the inner workings of business organizations and being able to gain a more comprehensive perspective on why we do things the way we do. Many of the processes we utilize on an everyday basis, when carefully screened, are hurting us in the long run.

Writing a book takes a community to produce the finished product. We are deeply appreciative of those continuous process improvement professionals who have helped us along the way. I am especially appreciative of Bob Sproull, who is a certified Jonah, from the Goldratt Institute and has been willing to review each chapter as it was completed. It was Bob who urged me to try the business novel approach compared to my earlier works.

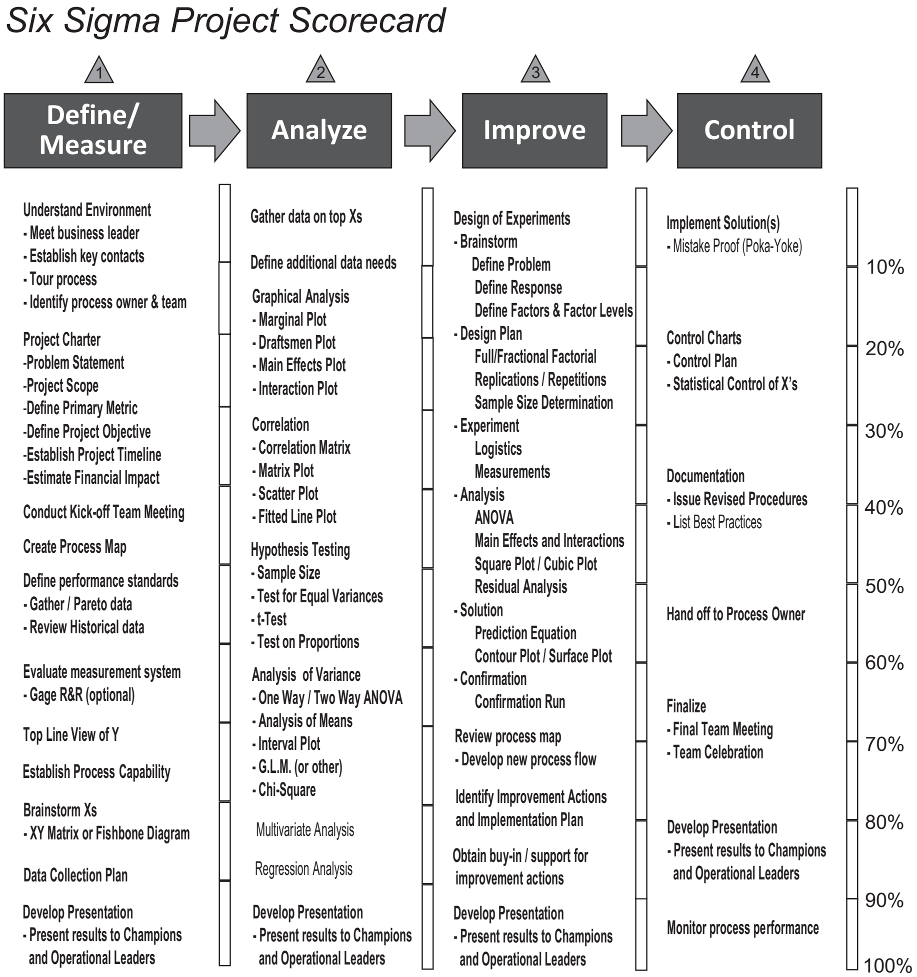
During my Six Sigma Black Belt training I learned my lessons well and have with some effort found the path to relate them to the business arena. Despite learning those lessons, it was still critical that my efforts be reviewed by independent eyes with the mission to determine whether we got the material across in a manner easily understood by the everyday business professional. For her willingness to review the final work I thank Julie DelPrincipe Mulligan, who is a quality expert in the healthcare industry. From when I walked into a classroom to complete the requirements for my Six Sigma Black Belt, she has been my guardian angel. Actually, she has been more my “Partner in Crime” on many occasions. Without her assistance and guidance, I would never have made it through some of the more technical areas of the process. Today she is more than a former classmate, she is a truly close friend.

I would also be remiss if I did not acknowledge the contribution of two individuals to the journey I have undertaken. Eliyahu Goldratt, who I never

had the pleasure of meeting and who left us way too early, through his work *The Goal* and subsequent related titles, started me on this journey. His introduction on how to identify the obstacles in our organizational functions was an eye-opener into some illogical efforts on the part of many organizations. William F. Mazurek, a continuous improvement champion, has over the past nearly ten years filled the functions as my instructor, my advisor, and my guide through the Six Sigma arena. He is the instructor of the Six Sigma Black Belt program at St. Petersburg College.

This work would not have come to fruition if it was not for the assistance of the staff at Productivity Press, including Michael Sinocchi, our editor, Iris Fahrer, our Project Editor, and our project coordinators. Thank you for your time and efforts to bring this message to the business world.

Appendix 1: TLS Continuum Project Scorecard



Define/Measure

Understand Environment
- Meet business leader
- Establish key contacts
- Tour process
- Identify process owner & team

Project Charter
-Problem Statement
-Project Scope
-Define Primary Metric
-Define Project Objective
-Establish Project Timeline
-Estimate Financial Impact

Conduct Kick-off Team Meeting

Create Process Map

Define performance standards
- Gather / Pareto data
- Review Historical data

Evaluate measurement system
- Gage R&R (optional)

Top Line View of Y

Establish Process Capability

Brainstorm Xs
- XY Matrix or Fishbone Diagram

Data Collection Plan

Develop Presentation
- Present results to Champions and Operational Leaders

Analyze

Gather data on top Xs

Define additional data needs

Graphical Analysis
- Marginal Plot
- Draftsmen Plot
- Main Effects Plot
- Interaction Plot

Correlation
- Correlation Matrix
- Matrix Plot
- Scatter Plot
- Fitted Line Plot

Hypothesis Testing
- Sample Size
- Test for Equal Variances
- t-Test
- Test on Proportions

Analysis of Variance
- One Way / Two Way ANOVA
- Analysis of Means
- Interval Plot
- G.L.M. (or other)
- Chi-Square

Multivariate Analysis

Regression Analysis

Develop Presentation
- Present results to Champions and Operational Leaders

Improve

Design of Experiments
- Brainstorm
    Define Problem
    Define Response
    Define Factors & Factor Levels
- Design Plan
    Full/Fractional Factorial
    Replications / Repetitions
    Sample Size Determination
- Experiment
    Logistics
    Measurements
- Analysis
    ANOVA
    Main Effects and Interactions
    Square Plot / Cubic Plot
    Residual Analysis
- Solution
    Prediction Equation
    Contour Plot / Surface Plot
- Confirmation
    Confirmation Run

Review process map
- Develop new process flow

Identify Improvement Actions and Implementation Plan

Obtain buy-in / support for improvement actions

Develop Presentation
- Present results to Champions and Operational Leaders

Control

Implement Solution(s)
- Mistake Proof (Poka-Yoke)

Control Charts
- Control Plan
- Statistical Control of X's

Documentation
- Issue Revised Procedures
- List Best Practices

Hand off to Process Owner

Finalize
- Final Team Meeting
- Team Celebration

Develop Presentation
- Present results to Champions and Operational Leaders

Monitor process performance

Figure A1.1 Project scorecard.

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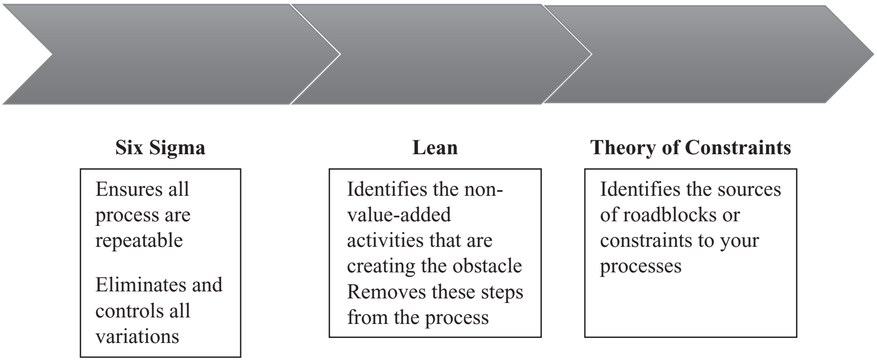
Appendix 2: The TLS Continuum Process



Six Sigma

Ensures all process are repeatable

Eliminates and controls all variations

Lean

Identifies the non-value-added activities that are creating the obstacle
Removes these steps from the process

Theory of Constraints

Identifies the sources of roadblocks or constraints to your processes

The TLS Continuum Process consists of a series of logical steps to bring improvement to the process involved. Each of these steps builds on the previous step to develop a fully concise effort to resolve the problem at hand.

Step 1: Determine your goal

What is your company's goal? Let me ask that again, what is your company's goal? Eliyahu Goldratt, in *The Goal*, says that every organization's goal is to make money. Tony Alessandra, in *The Platinum Rule*, says the goal is to acquire and maintain customers. Whatever the goal is you need to clearly delineate it.

Part of the process to determine the goal is to change the organizational view of the world. We no longer calculate things based on cost. Our view must transform to a look at throughput. Costs are not allocated to a particular product or service, rather they are allotted over the entire process. We do this through the implementation of throughput accounting. The formula for calculating the new view is that throughput is the rate of new sales dollars. In other words, it is the total sales dollar minus the total variable costs to produce the end product. In order to determine the ROI or net profit we subtract those product costs from the amount of sales. Inventory or investment costs are the funds you have put into machinery and materials to produce your products. The remaining factor is the organization's operating expenses. This provides us with a view of monies traveling through the organization.

With the goal in mind, we turn our attention toward where we need to get. William Dettmer[1] and Bob Sproull[2] suggest the use of a goal tree. An example of one appears on Page 89.

The goal tree begins with your goal – what it is you are trying to achieve. It then poses the question to you that in order to reach this goal, what MUST your organization have? What is the critical success factor which tells you that you have reached the goal? In the problem posed in this book, those critical success factors might be the removal of the barriers to the process flow. It might be a better control system for the flow of parts to the factory floor.

With the critical success factors in place, the next level down in the tree is to ask in order to obtain the critical success factors what must be in place to get there? What changes in your process will be required to get the new factors in place? In the example goal tree, that organization determined that they want to maximize throughput. In order to secure that maximized throughput, they need to maximize the incoming sales dollars while controlling costs. As we did with this level, the next level down asks you to determine what you need to do, for example, to maximize revenue. The example tree shows that the way you do that is to have satisfied customers like Morrison.

Finally, at the bottom of the tree you ask again what is needed for you to have satisfied customers. The figure "The Goal Tree" suggests that you need to have a high-quality product. This would bring us back to the Acme Gyroscope side of the equation and causes us to question whether there is something with your product which is not meeting the needs of your customers.

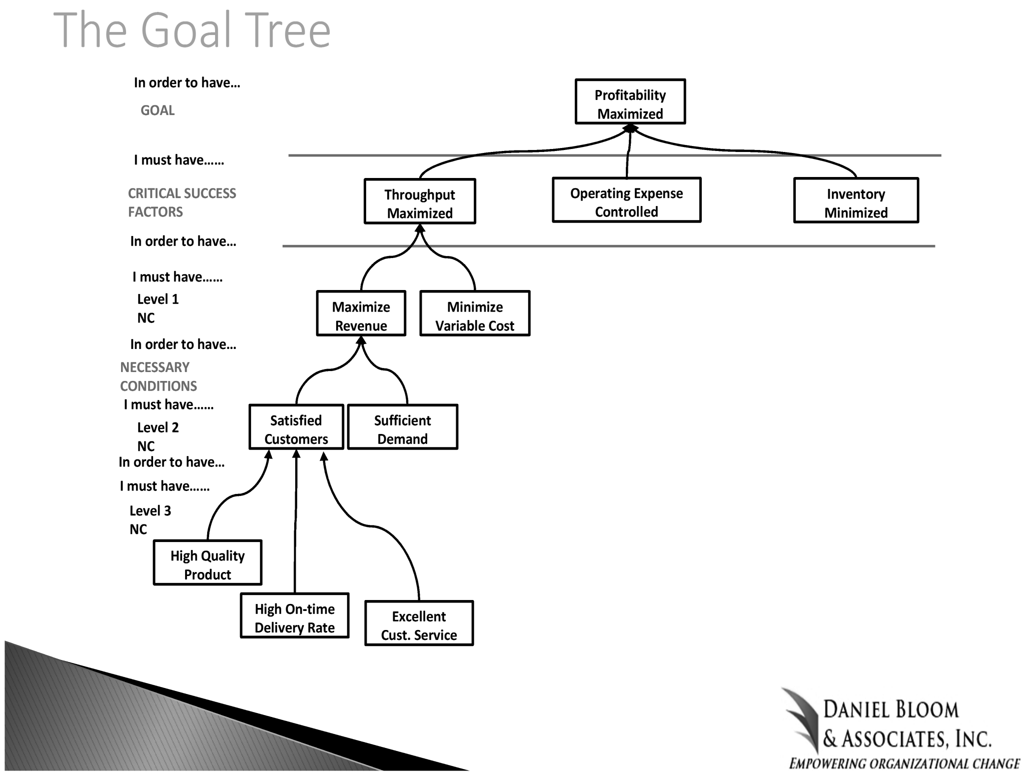

The Goal Tree
In order to have…
GOAL
I must have……
CRITICAL SUCCESS FACTORS
In order to have…
I must have……
Level 1 NC
In order to have…
NECESSARY CONDITIONS
I must have……
Level 2 NC
In order to have…
I must have……
Level 3 NC
Profitability Maximized
Throughput Maximized
Operating Expense Controlled
Inventory Minimized
Maximize Revenue
Minimize Variable Cost
Satisfied Customers
Sufficient Demand
High Quality Product
High On-time Delivery Rate
Excellent Cust. Service
Daniel Bloom & Associates, Inc.
Empowering Organizational Change

Figure A2.2 The goal tree.

Step 2: Define the boundaries

With the goal and its prerequisite in place, we can turn to trying to resolve the issue at hand. The process begins with two critical parts to the TLS Continuum process.

The first task is the development of a project charter. A project charter presents several key elements for our consideration. The underlying tenant of the charter is that we see and feel the needs of our customers. In the case presented above, it is seeing and feeling the problem that Morrison Aeronautics has told Acme Gyroscope they are having. With the charter in place we can construct what the solution-seeking process is going to appear like. The project charter consists of 11 sections which enables the organization to walk through the improvement process and gain an understanding of where the organization is and where it expects to be at the end of the problem-solving effort. The first section asks for identification of the problem presented in a short sentence as to what the problem (goal) is. The following section asks you to identify the organization for whom the solution-seeking effort is being undertaken.

Every solution-seeking effort should include someone who serves as the gatekeeper if you will between the project and management of the two firms involved. They are responsible for paving the way for the cross-functional team to perform the actions they need to accomplish the goal they have established. It is also critical that we construct the cross-functional team.

The second task is the development of that cross-functional team.

Starting with a macro view, your cross-functional team should include a representative of all the stakeholders who play a part in the process. It means identifying who has an investment in the solution to the problem. Once the team is in place and the milestones or deliverables identified, there is still one other crucial decision to be made. As an example, let me give you a comment from an attendee at one of my two-day classes. The final action in the class is for each participant to bring an issue from their workplace and create an improvement project. This one individual in his session evaluation stated that the least valuable part of the two days was the final project. His reasoning was because management would never let him implement his suggestions. Therein lies the crucial decision. With the help of the project sponsor and the project champion you need to determine the chain of command for process changes. Does the team on its own initiative have the power to make the changes? Does the cross-functional team have the authority of management to enter into the solution-seeking effort? Remember the purpose of your change effort is to see the problem, feel the problem, and change the organization to create a new normal. Is there organizational buy-in to create that new normal business model? Without that tacit approval you can be looking for solutions every day and still not respond to the customer's voice about your processes.

Step 3: Identify the system constraint or obstacle

Using the critical thinking tools of the TLS Continuum it is now time to definitively define the problem. What does the system tell you the current state looks like as well as what the future state after the solutions sought are implemented? What are the characteristics of those state components? What does the system look like? From there we can begin to commence the process of seeking out the solutions which will resolve the obstacle.

Step 4: Subordinate everything else to the system constraint

Using the tools of the TLS Continuum methodology, it is time to turn to the DMAIC (Define-Measure-Analyze-Improve-Control) process and research our problem. Specifically, we take the goal from step one and make that the problem. As in the scientific method, we then need to begin the process of measuring the problem. We want to identify whether what we think is going wrong is in fact the true cause of the problem. With the evidence-based metrics derived from the measurement stage we then analyze the metrics to see what the data is telling us.

Once the earlier stages are completed we then proceed to the last two stages. The purpose of this stage is to make the resolution of the problem the primary function of the organization.

Step 5: Elevate the constraint

With the constraint (problem or obstacle) identified we then elevate the constraint so that we can cure the obstacle. At the same time, we want to create a standard of work and remove variations from the processes. Our intent is to ensure that we have remedied the obstacle and have the organization on the path to sustainable change management.

Step 6: Start the process over again by identifying a new constraint

Change management fact of life is that the above process does not rectify all the organizational obstacles. It is also true that once you resolve the one constraint another one will appear and then we will begin the process all over again. It is necessary that we take some time to discuss a dichotomy between two views of the change management arena.

The use of the Lean and Six Sigma methodology suggest that the new constraint will be apparent in approximately three to six months. It is instilled in every facilitator's presentations in this area. When we combine Lean and Six Sigma with that of the Theory of Constraints the new constraint should be visible immediately after we complete the process above.

The TLS Continuum can be better explained by stating its ultimate goal. We use TOC to identify the obstacles and then we use Lean to remove that obstacle and Six Sigma to create a standard of work and eliminate and control all variations from the organizational processes.

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2. Sproull, Robert. *Epiphanized* 2nd Edition. New York, NY: CRC Press, 2015. Pages 248–249.

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