Tired of struggling to solve key business problems?

Your Six Sigma Simplified Million Dollar Money Belt™ Action Plan

A Proven Methodology For Increasing Productivity and Profits

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Six Sigma Simplified

Six Sigma Targets

Sigma (σ)	Defects/Million
1	690,000
2	308,733
3	66,803
3.5 Avg	30,000
4	6,210
5	233
6	3.4

What Is Six Sigma?

Six Sigma is a results-oriented, project-focused approach to quality. It's a way of measuring and setting targets for reductions in product or service defects that is directly connected to customer requirements. These reductions in the cost of poor quality translate into cost savings and competitive advantage. Sigma, σ, represents one standard deviation from the average or mean. Most control charts set their range at ±3s, but Six Sigma extends three more standard deviations. At six sigma, there are only 3.4 parts per million (PPM) defective.

In *Built To Last*, (Collins 1997), the authors mention the need for a BHAG or Big Hairy Audacious Goal. Using Six Sigma as a guide, you can measure your current performance in defects per million and set a BHAG of reaching the next level sigma. Set a goal to reach 5 sigma, estimating 18-24 months per sigma.

The Improvement Journey

In the long run, the only sustainable source of competitive advantage is your organization's ability to learn faster than its competition.
Peter Senge

When you start to improve your speed, quality, or cost, you become like Sherlock Holmes. You let the trail of evidence (your data) lead you step-by-step to the true culprit–the root cause. When you do, you'll stop using trial and error, or gut feel to fix things. You start using some common science. Six Sigma Simplified offers a proven, systematic method to continuously improve every aspect of your business. Six Sigma Simplified begins with **focusing** effort for maximum benefit, then **improving** the processes, **sustaining** the improvement and **honoring** your progress.

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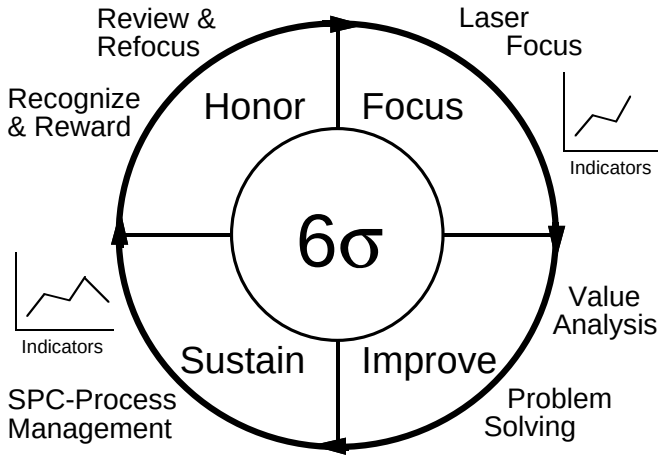
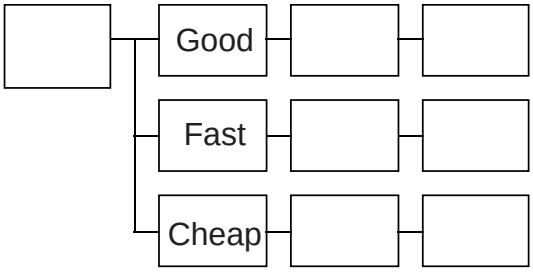


Six Sigma Simplified

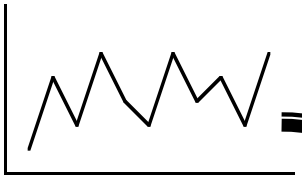
FISH	Step	Activity
Focus	1	Focus the improvement effort
Improve	2	Reduce delay, defects, and costs
Sustain	3	Stabilize and sustain the improvement
Honor	4	Recognize, review and refocus efforts

Your "Million Dollar Money Belt" Improvement Strategy

1. Create a Master Improvement Story



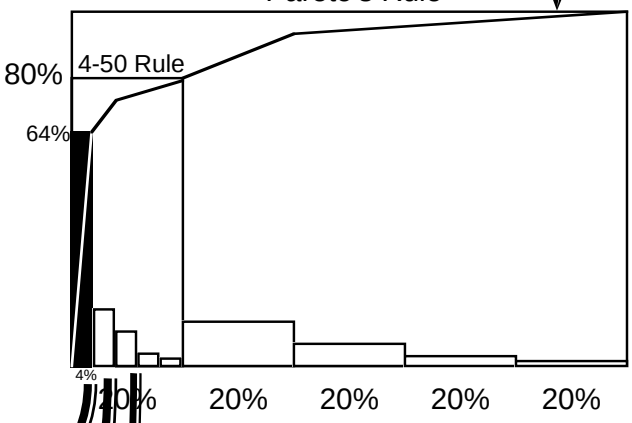
2. Track Key Indicators



Line Graph

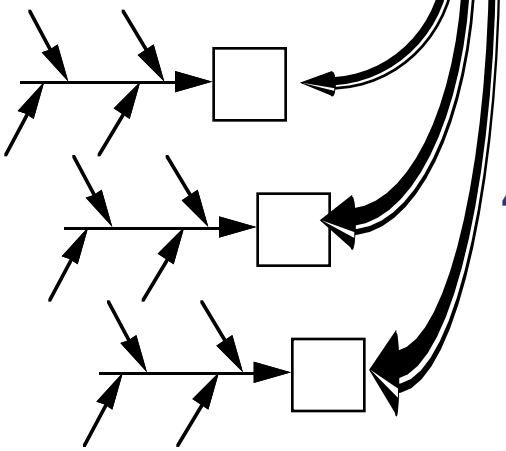
3. Define the Problem

Pareto's Rule



Less than 4% of any business creates over 50% of the waste, rework, and lost profit. Like a crime scene investigator reviewing forensic evidence, you can use data you already have to find and fix these root causes, and save a ton of money.

4. Analyze Parts of the Problem Simultaneously



Root Cause Analysis

5. Prevent The Problem

Countermeasures				

Create a Master Improvement Story

Master QI Story

Master QI stories link all of the improvement efforts to ensure quantum improvements, not just incremental ones. The easiest way to depict a Master QI Story is with the "tree" diagram.

Master QI Stories begin with a vision of the ideal world. This vision is then linked to long-term customer requirements, short term objectives, measures, and targets.

Why Is It So Important To Develop A Master QI Story?

1) If leadership does it, they will commit to achieving it.

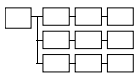
2) It links customer needs to the improvement efforts. This clear linkage, which is often missing, helps employees and leaders focus on the customer and align all of their actions to achieve customer outcomes, not internally generated ones.

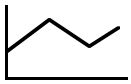
3) Measurements based on customer requirements provide an ideal way to evaluate performance.

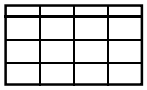
4) Detailed Master Improvement Stories can then be developed and linked to this one by individual managers.

5) Results can be measured and monitored easily.

Key Tools







Long Term Objectives

Long Term Customer Requirements invariably fall into one of three categories:

Requirement	Measure
• Better Quality–reliability and dependability	defects/million
• Faster Service–speed and on time delivery	cycle time
• Higher Perceived Value–lower cost	cost

Short Term Objectives

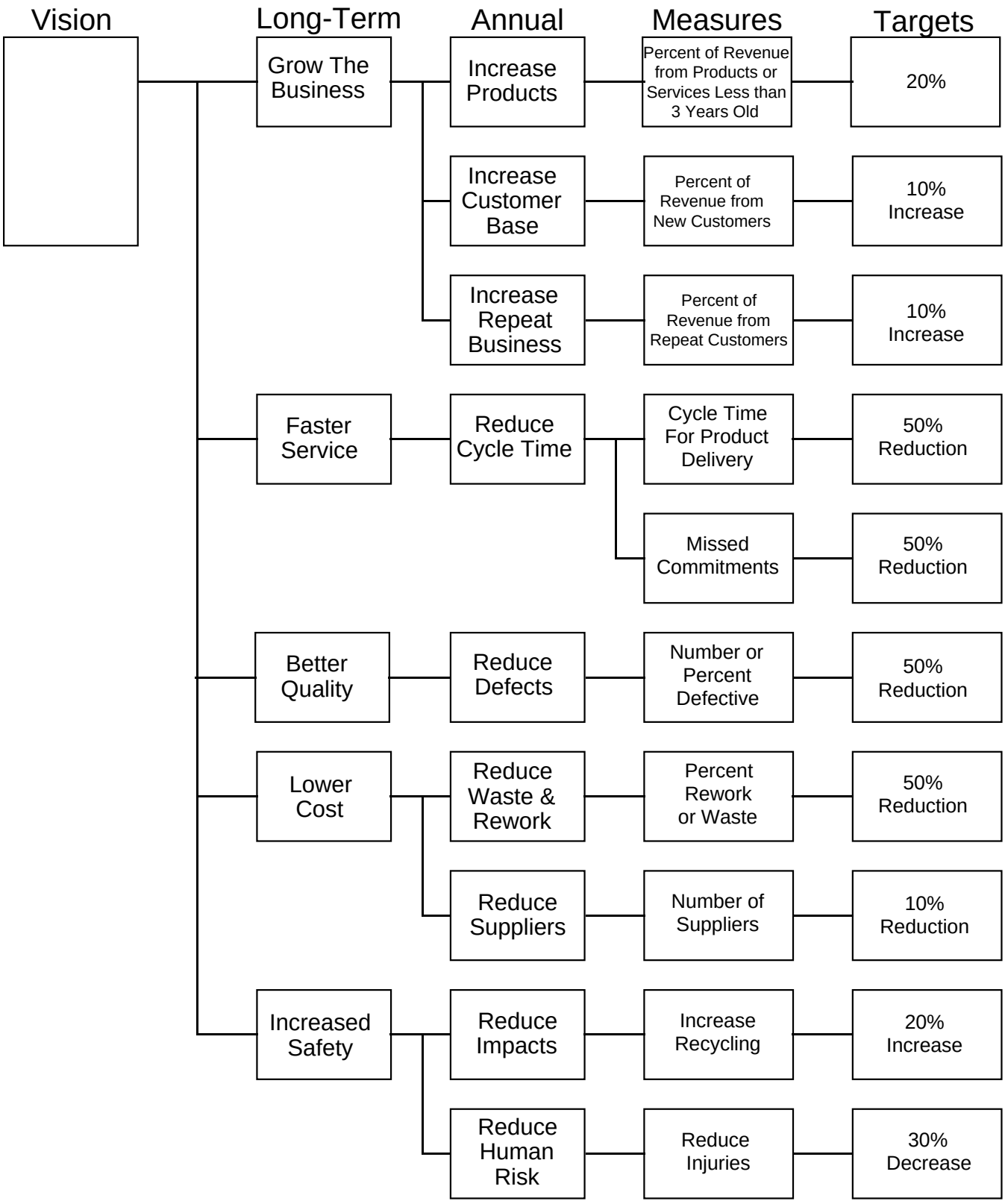
Short Term Objectives translate these customer "fluffy" objectives into more concrete ones that can be **measured** and improved to meet the targets (from indicators):

- Better Quality–fewer defects in delivered products, services
- Faster Service–reduced cycle time or missed commitments
- Higher Perceived Value–greater benefits achieved by reducing the cost of waste and rework.

Targets

Targets are the BHAGs (Big Hairy Audacious) that challenge our creativity and ability. 50% reductions in cycle time, defects, and costs are both challenging and achievable in a one year period. But to do so requires highly focused, not random, improvement work.

Create a Master Improvement Story



Six Sigma Simplified
Step 1 - Define The Problem

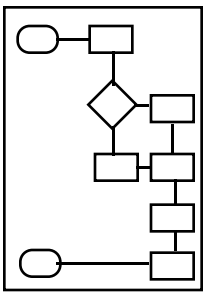
Purpose

Define a specific problem area and set a target for improvement

Problems are only opportunities in work clothes.
-Henry J. Kaiser

There are two ways of looking at problems:

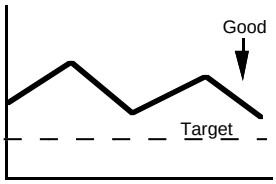
Increase (you want more of a "good" thing)
Decrease (you want less of a "bad" thing)



These are often two sides of the same coin:

an increase in ...	is equal to a decrease in . . .
quality	number or percent defective
speed	cycle time–to deliver a product or service idle time–people, materials, machines
profitability	cost of waste and rework

Measurement

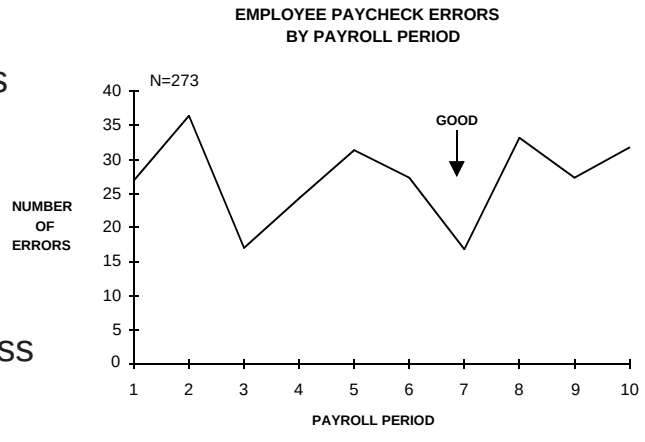


Solving problems is usually easiest when you focus on decreasing the "bad" rather than increasing the "good," because most good things are *effects* of fixing the bad. Most problems can be easily expressed as a *line graph* showing the current trend and desired reduction in either cycle time, defects, or cost. Begin by graphing the current problem:

Example:

Reduce defects in employee paychecks

Target: 15 or less



Six Sigma Simplified
Step 1 - Define The Problem

(circle one)

Problem: Reduce Defects / Time / Cost in / to deliver _____ (product or service)

Number of Data Points = ____

_____
Title of Graph

Number or Percent of Defects

Cycle Time
Idle Time

Cost per Unit
Waste or Rework

Good ↓

units (of time--hours, days, weeks) →

Who collected the data?

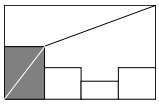
When was data collected?

Where?

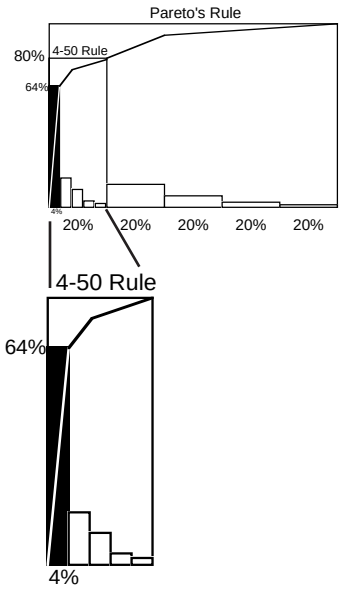
What formula was used?

Six Sigma Simplified
Step 1 - Define The Problem

Pareto Chart



We only admit to minor faults to persuade ourselves that we have no major ones.
- La Rochefoucauld



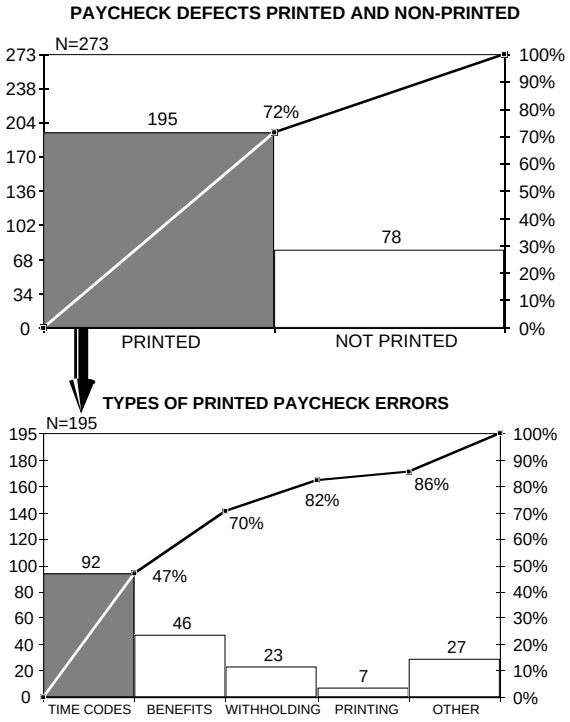
A problem well stated is a problem half solved.

Problem *areas* are usually too big and complex to be solved with one effort, but when we whittle it down into small enough pieces, we can fix each one easily and effectively.

This step uses the Pareto chart (a bar chart and a *cumulative* line graph) to identify the most important problem to improve first.

Often, two or more pareto charts are needed to get to a problem specific enough to analyze easily. The left axis shows the number of occurrences for each bar. The right axis shows the cumulative percentage for the line graph.

Begin by identifying the components of the problem:



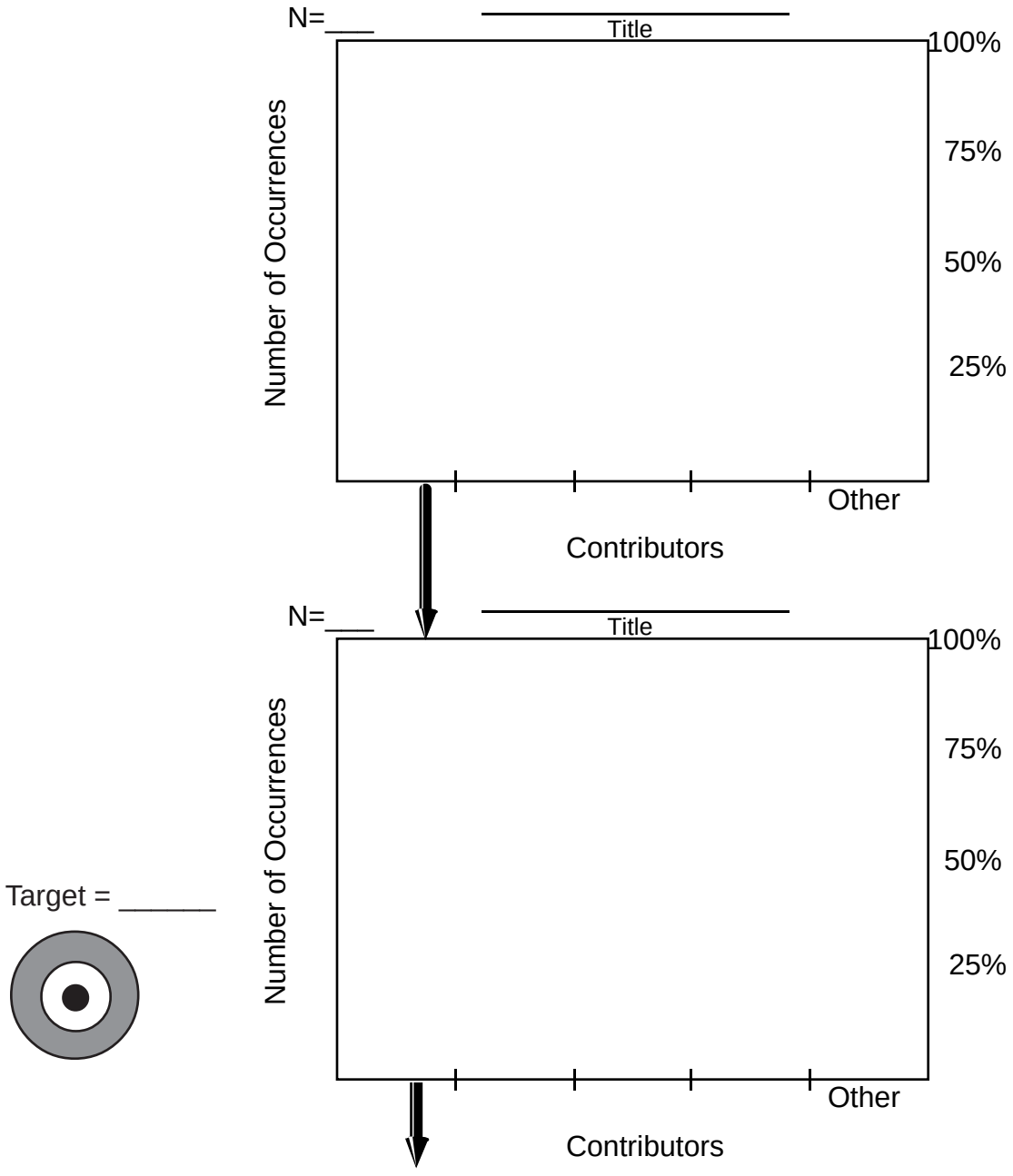
Indicator	Pareto Components
Defects	- types of defects
Time	- steps or delays in a process
Cost	- types of costs--rework, waste

Once we have whittled the problem down to a small enough piece, we can then write a problem statement about the major contributor. This will serve as the basis for identifying root causes. We also need to set a target for improvement.

Problem Statement

Problem Statement: During the first five months of the year, time code errors accounted for 47% of all incorrect paychecks, which was 2X higher than the next highest contributor and resulted in 78 employee complaints.
Target: 50% reduction in time code errors

Six Sigma Simplified
Step 1 - Define The Problem



Problem Statement

During _____, ____, _____accounted for ___% of _____,
(Months) (Year) (Main Contributor) (time, defects, cost)

which was ___ higher than desired and resulted in _____.
(Gap) (Pain)

Six Sigma Simplified
Step 2 - Analyze the Problem

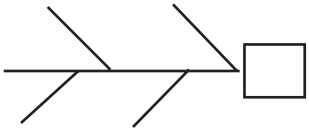
Purpose

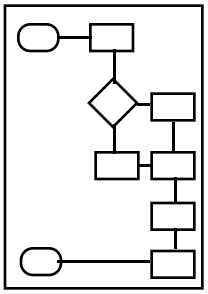
For every thousand hacking at the leaves of evil, there is one striking at the root.
-Thoreau

Identify and verify the root causes of the problem

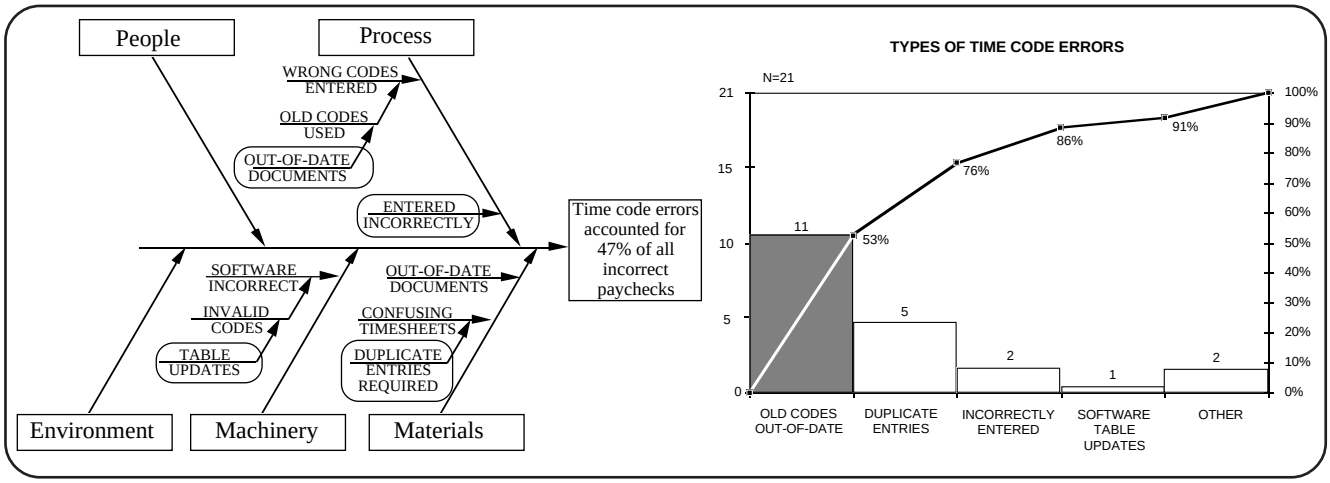
Like weeds, all problems have various root causes. Remove the roots and, like magic, the weeds disappear.

Cause-Effect Analysis

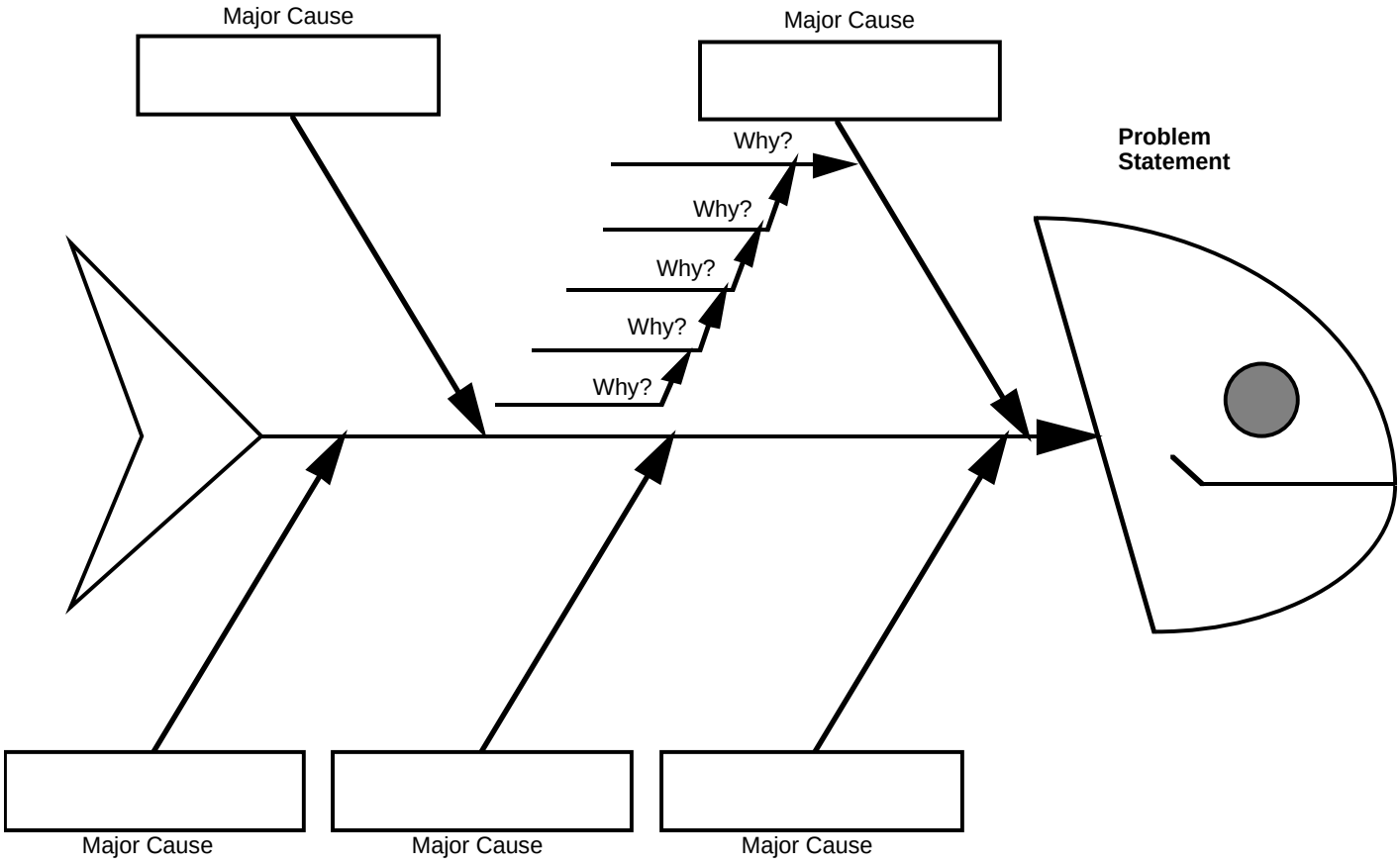


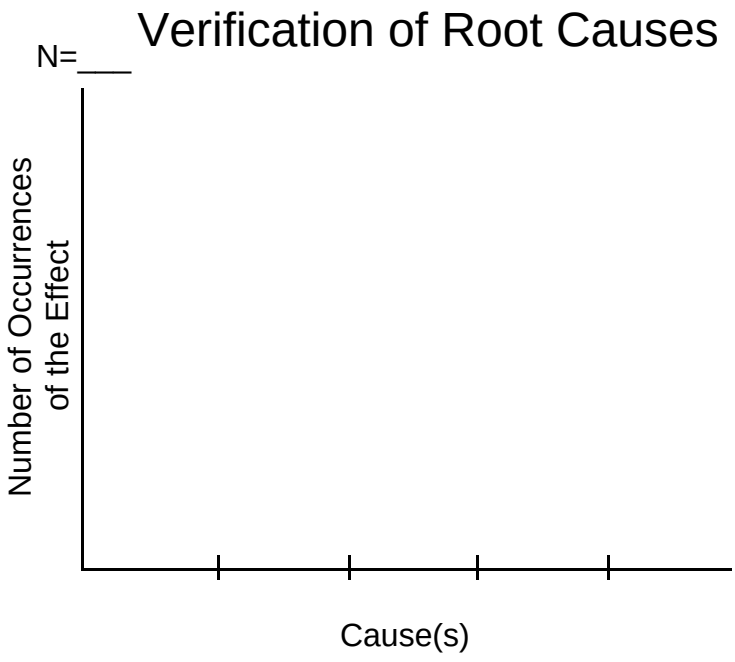


1. To identify root causes, use the fishbone or Ishikawa diagram. Put the problem statement from step 1 in the head of the fish and the major causes at the end of the major bones. Major causes include:
   - Processes, machines, materials, measurement, people, environment
   - Steps of a process (step1, step2, etc.)
   - Whatever makes sense
2. Begin with the most likely main cause.
3. For each cause, ask "Why?" up to five times.
4. Circle one-to-five root causes (end of "why" chain)
5. Verify the root causes with data (Pareto, Scatter)



Six Sigma Simplified
Step 2 - Analyze the Problem





Six Sigma Simplified
Step 3 - Prevent the Problem

Purpose

Identify the countermeasures required to reduce or eliminate the root causes

Take away the cause, and the effect ceases.
- Cervantes

Like ecological weed prevention, a countermeasure prevents problems from ever taking root in a process. A good countermeasure not only eliminates the root cause but also prevents other weeds from growing.

Defining Counter-measures

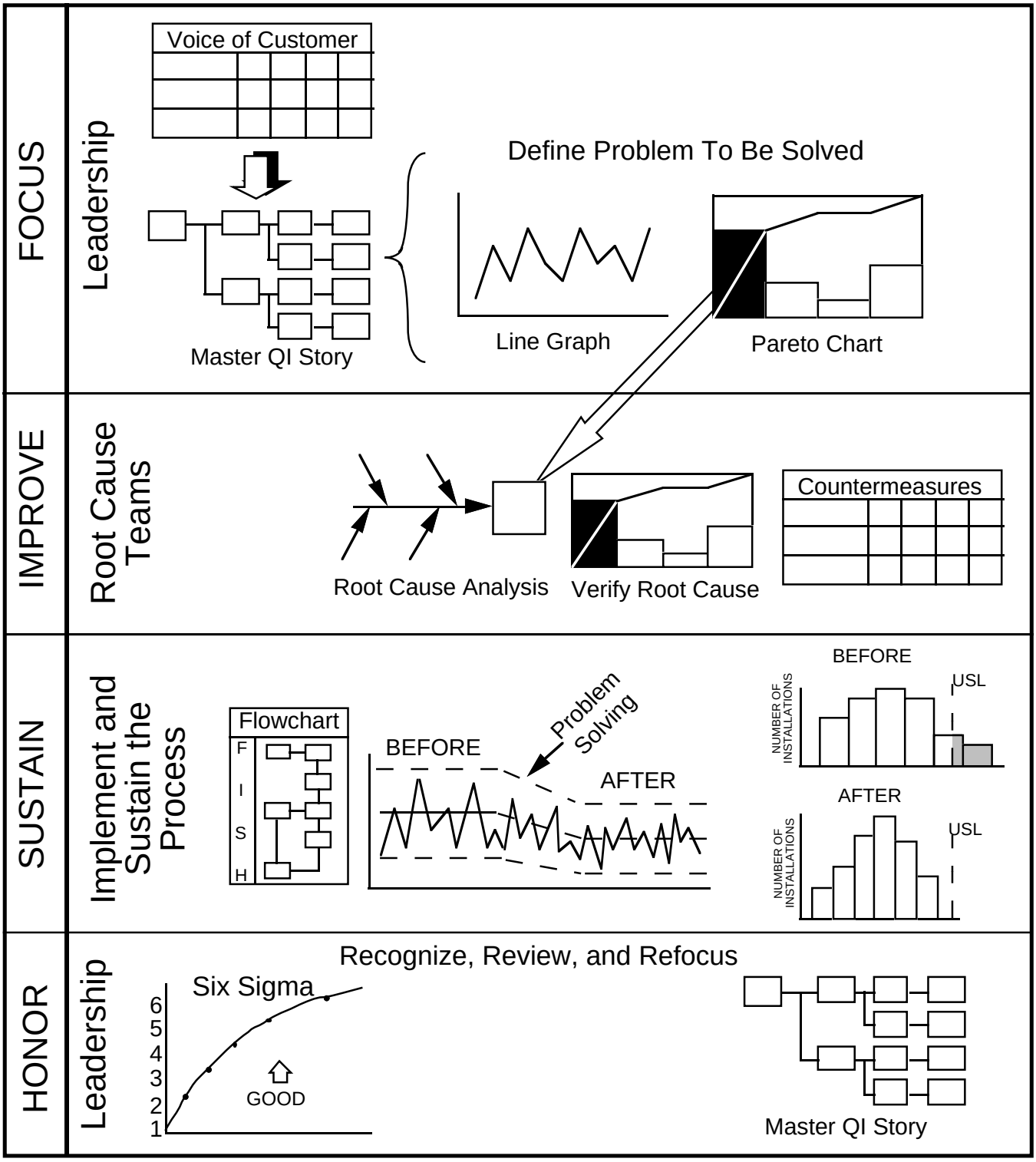
COUNTERMEASURE				

1. Transfer the problem statement from step 2 and the root causes from step 3.
2. For each root cause, identify one to three broad countermeasures (what to do).
3. Rank the effectiveness of each countermeasure (Low, Medium, or High)
4. Identify the specific actions (how to do it) for implementing each countermeasure
5. Rank the feasibility (time, cost) of each specific action (Low, Medium, or High).
6. Decide which specific actions to implement.

Problem Statement_____

Root Cause	Countermeasure	Effective?	Specific Actions	Feasible?

Six Sigma Simplified



Six Sigma Simplified

How to save $250,000 and add it to your bottom line!

It happened again. I was talking to someone that went on and on about how they'd tried Six Sigma. They trained lots of black belts and green belts. Several years and millions of dollars later they still have next to nothing to show for it. Don't let this happen to you!

Become a Six Sigma Simplified "Money Belt"

Instead of black or green belt, you want to be a "*money belt*!" I want you to learn the actual methods, strategies, and techniques I've used to generate millions of dollars in savings for my clients. I'll teach you how to systematically save $250,000 and add it to your profits.

If you are serious about starting or remaking your Six Sigma program into one that achieves breakthrough reductions in cycle time, defects, and costs while maximizing bottom-line benefits and minimizing your investment, this is the strategy for you. Quite frankly, it doesn't matter what industry you're in, or what product or service you have. If you're a $10 million company or larger and have problems with speed, quality and value, you can start using these Six Sigma tools right now to routinely add $250,000 to your bottom line.

The Bad News (The Fix-It Factory)

In your business there are two factories: one that delivers products or services, and the "Fix It" factory that repairs all of the mistakes created by the first factory. If you're a "3-sigma" business (3% error or 30,000 defects/million), that's 3% in orders, 3% in fulfillment, 3% in billing...your real error rate is 6%, 12%, 18% or worse. And each error costs more to fix than it did to create it. Between $25-$40 of every $100 you spend is wasted on fixing defective products or services. That's a big bite out of your profits. OUCH!

What Most Six Sigma Consultants Don't Want You To Know!

If you're a 3-sigma company, then you can solve 90% of your current problems using three tools: line graph, pareto chart, and fishbone diagram. Focused application of these tools can take you from 3- to 5-sigma (233 defects/millions) in 18-24 months. Then you'll be ready for some Black belt training, but until then you're just wasting your money fattening resumes.

A Model That Works

After a decade of working with improvement teams, I've found a consistent, foolproof method to achieve breakthrough improvements:

1. **Focus** the improvement effort to minimize the cost and maximize the gain.
2. **Improve** dramatically your speed, quality, and cost.
3. **Sustain** the improvement to maximize your productivity and profitability.
4. **Honor** your progress by recognizing your team's efforts.

Six Sigma Simplified

Plan of Action

Objectives

- Create Six Sigma skills in key employees
- Create measurable results during implementation
- Transfer the skills of Six Sigma to the initial wave of team members
- Transfer ongoing implementation to internal consultant-trainers selected from successful initial teams.

Implementing Six Sigma Simplified

Process:

1. Learn the essence of laser-focused improvement and process management.

Focus

2. Focus your improvement efforts to achieve six sigma reductions in cycle time, defects, and cost, which translate to dramatic improvements in customer satisfaction, productivity, and profitability. Remember: 4% of your business creates over 50% of the waste.

   Note: If leadership cannot create a Master Improvement Story and Step One, then your employees won't be able to do so either.

Improve

3. Employ the problem solving process and apply it in multiple parallel teams to achieve quantum leaps in improvement.

Sustain

4. Stabilize and sustain the improved processes to ensure continued high performance.

Honor

5. Develop internal consultant-trainers to continue the implementation of Six Sigma.

Considerations:

The statistics are ominous: over half of all TQM efforts failed; the same will be true for Six Sigma. Training a Six Sigma blackbelt can cost over $15,000 and many months while they come up to speed on Six Sigma. With Six Sigma Simplified "Money Belt" Training, your employees get 2 hours of Just-In-Time training and 6-14 hours of results-creating experience. When a critical mass–16-25% of the people–have this deep experience, the change will begin to cascade throughout your company.

Approach:

1. Under NO circumstances should you attempt to train everyone and do everything. As shown on pages 3 and 13, leadership must focus on the top one, two, or three priorities and develop the first steps of the improvement story. If leadership, guided by skilled consultants, cannot do this, neither can a team. Don't start teams who cannot succeed.

2. Once you know exactly which problems to solve first, you will know who should be on the root cause team. This team should meet for no more than two days to hammer out the root causes and proposed solutions.

3. Implementation teams should implement and sustain the process.

Working with Jay Arthur

This workbook is an outline of the improvement areas that I explore with my results-oriented clients. My goal is to help you understand how to make dramatic improvements in your business performance by simplifying the approach and narrowing the focus to ensure success.

Haven't you waited long enough to start getting the results you want? You can take advantage of these services in the following formats:

The Complete Lean Six Sigma System (Item #290/5)

Have you ever noticed that once you learn something, you use 20% of the tools about 80% of the time? That's what I've done with the Lean Six Sigma System–packaged the vital few tools that you need to make breakthrough improvements. This package includes: *Lean and Six Sigma Simplified* books, *Instructor's Guide*, *Six Sigma Tools book, QI Macros for Excel* (automates all of your graphs) and QI Macros Training CD, Lean Six Sigma Audios on 5 CDs and *Lean, Six Sigma and SPC Training Videos on 4 DVDs.* The healthcare version includes an additional training video on Lean for Healthcare Labs.

Item 290: Manufacturing $675 + S&H Item 295: Healthcare $775 + S&H

Six Sigma Training and Consulting

If as much as $40 of every $100 you spend is wasted on fixing defective products and services, what would cutting that in half mean to your bottom line? I've helped my clients save anywhere from $250,000/month to $20 million a year. Using your insights and data, I can guide you to:

1. **Create a master improvement story** to achieve breakthrough improvements in vital parts of your business. This takes one-to-two days.
2. **Develop the line and pareto charts** necessary to focus the improvement effort on the 4% of the business that causes over 50% of the waste. These two steps usually take 3-5 days.
3. **Facilitate root cause teams to solutions** in one or two days and identify the implementation team. Implementation can take from a few days to several months.
4. **Help establish management processes** to sustain the improvements.
5. **Train teams** in the problem solving process and process management.

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