

Problem Solving Guide

- 1) Identify the Problem
 - a. Brainstorm a list of ideas and prioritize
 - b. Start with a pre-determined problem
 - c. Solution not known
 - d. Compare ideal vs. current
 - e. Must be measurable
 - f. Keep scope in mind
- 2) Grasp the Current Situation
 - a. Genchi Genbutsu: Go and see the problem for deeper understanding
 - b. Use data objectively to break down the problem into smaller, more concrete problems
 - c. Narrow the focus to one aspect of the problem to solve
 - d. Make sure it is still a problem – if not, go back to step 1
- 3) Set a Target
 - a. Specific and numeric
 - b. Clarify rationale and impact
- 4) Determine the Root Cause
 - a. Brainstorm potential causes for the problem
 - i. Can you turn the problem on and off with the root cause?
 - b. Come to consensus on one or two high potential causes (direct cause)
 - c. Go and see or collect data to verify if direct cause is true
 - i. If not true, go to next direct cause
- 5) Develop a Countermeasure Plan
 - a. Address the root cause
 - b. Clarify roles and involve everyone
- 6) Implement Countermeasure
 - a. Collect data to monitor results
 - b. Be consistent in any before and after comparisons
 - c. Ensure no adverse effects at neighboring processes
- 7) Confirm Results
 - a. Compare results with target from Step 3
 - b. If still off, try next countermeasure or return to Step 4
 - c. If on track, cease any short-term measures
 - d. Self-evaluate development
- 8) Standardize / Control
 - a. Standardize success to prevent recurrence
 - b. Re-train as needed
 - c. Audit or create systems to sustain improved standards