Your Role as a Six Sigma Green Belt

• The Six Sigma Green Belt operates in support of or under the supervision of a Six Sigma Black Belt, analyzes and solves quality problems and is involved in quality improvement projects. A Green Belt is someone with at least two years of work experience who wants to demonstrate his or her knowledge of project management, facilitation, Six Sigma tools and processes.

• Source: ASQ
 Benefits of Six Sigma Green Belts in your organization

- Organizations wishing to drive out waste, cost and improve processes should have Six Sigma Green Belts within 50% of their organization.
- The Six Sigma Green Belt manages small to medium size improvement projects with savings ranging from $25,000 to $500,000.
- Green Belts also help drive the Six Sigma methodology into the DNA of the company.
- The Green Belt serves as a resource for improvement projects that Black Belts or Master Black Belts are leading.
- They are skilled in project management, facilitation, process mapping, data collection and analysis, solution selection and have the ability to monitor, own and sustain long term control of implemented improvements.
Six Sigma Green Belts Skills and Knowledge: Define Phase

- Project Charter
- MGPP (Multi-Generational Project Planning)
- Cost of Poor Quality / Baseline Metrics of Current State Performance (CPk, DPMO, Sigma Level & Standard Deviation)
- Risk Analysis (Project FMEA), Stakeholder Analysis & Communication Plan
- Current State Process Mapping, NVA Analysis & SIPOC
- Voice of Customer and CTCs Identified
Six Sigma Green Belts Skills and Knowledge: Measure Phase

- Data Collection Plan (Xs impacting Y)
- Sampling Strategy
- Prioritization Matrix
- Attribute Measurement System Analysis (MSA)
- Gage R&R (Variable Data)
- Measurement System Evaluation (MSE)
Six Sigma Green Belts Skills and Knowledge: Analyze Phase

- Types of Variation (Common vs Special)
- Statistical Software
- Normality Testing / Central Limit Theorem
- Graphical Analysis of Data
- Statistical Analysis of Data
- Hypothesis Testing
- Correlation / Regression Analysis
- Identify and Validate Root Causes
Six Sigma Green Belts Skills and Knowledge: Improve Phase

- Solution Selection
  (Benchmarking, Brainstorming, Poka-Yoke / Mistake-Proofing, TRIZ & Design of Experiment / DOE)
- Pay-off Matrix
- Factorial Design
- Main Effects
- Risk Analysis (FMEA)

Main Effects Plot (data means) for Mileage

Mileage

Speed  Octane  Tire Pressure

23.8  24.8  25.8  26.8  27.8

Mileage
Six Sigma Green Belts Skills and Knowledge: Control Phase

- Develop Control Plan
- Pilot and Validate Solution
- Statistical Process control (SPC)
- Implementation Plan
- Improved Process
- Cost Benefit Analysis
- Celebrate!
Six Sigma Green Belt Summary

• If you want to have a successful Six Sigma program train at least 50% of your work force and create an army of leaders.

• Spread the knowledge, include senior managers to front line associates.

• Following this strategy will drive process improvements in all aspects of your organization and make you a leader within your industry.

• Continue to watch SixSigmaTV.Net for all of the information you need to drive Six Sigma into the DNA of your organization.

• For help, contact us at SixSigmaTV.Net
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