

Accelper Consulting

Six Sigma Black Belt Training



Why Six Sigma Training from Accelper?

- Involved with Six Sigma since its birth
- Authored Five Books on Six Sigma
- Trained and experienced instructors
- Hands-on approach with real-life practice sessions
- Excellent follow-up support
- Success stories

About the Black Belt Program

Accelper's Black Belt program enables the participants to prioritize business opportunities based on customer requirements and company's business objectives. It follows a practical and hands-on approach, and focuses on producing battle-ready Black Belts for achieving dramatic results. Our methodology guarantees improvement based on sound data analysis and creatively identifying cost-effective solutions.

The Accelper training program is covered in four one-week sessions spread over four months. These sessions systematically build your understanding of Six Sigma principles. The training structure allows the participants enough time to absorb and implement the concepts and tools on projects between sessions. Each participant will learn to use the Minitab software for statistical data analysis.

Target Participants

A Black Belt candidate can be an employee from any function or level of the organization who has interest in learning new skills and is enthusiastic about leading improvement initiatives.

Pre-requisites

- Participants must identify and bring an outline of a potential improvement project that has potential impact on customer satisfaction, and is aligned with business objectives. Participants must bring relevant data, process charts and any available information.
- Each participant is expected to bring a laptop computer loaded with a copy of the Minitab software.

Master Instructors

Praveen Gupta, founder of Accelper Consulting, has been involved with Six Sigma right since its birth at Motorola and was a Six Sigma Instructor for Motorola University. Praveen has trained hundreds of people in the US, Singapore, Canada and the UK. He has worked or consulted with more than 100 organizations worldwide, including Motorola, Comdisco, Molex, AT&T Bell Labs, Sloan Valves, Dentsply, Experian, Superior Essex, and Abbott Laboratories. He is the author of several books on Six Sigma including *Six Sigma Business Scorecard*, and *The Six Sigma Performance Handbook*. In addition, he writes a monthly column for www.qualitydigest.com. Praveen holds a BSEE degree from IIT, Roorkee, India, and MSEE degree from Illinois Institute of Technology, Chicago. Praveen is an ASQ Fellow and a Master Six Sigma Black Belt.

Arvin Srivastava, a Consultant at Accelper Consulting, has over 15 years of experience in business process improvement and Six Sigma in several industries. He has contributed chapters in *The Six Sigma Performance Handbook* and *Six Sigma for Transactions and Service*. Arvin has facilitated Six Sigma training, and projects at Accelper clients. Arvin received his BSME degree from IIT Roorkee, India, and MBA from Benedictine University, Lisle, Illinois. Arvin is a Six Sigma Black Belt.

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Program Overview

Week 1

Introduction

- Six Sigma and achieving competitive advantage
- Understanding roles of leadership and key players
- Overview of DMAIC methodology
- Simulation: Demonstration of the Need for Six Sigma
- Enterprise-wide Deployment
- Business Process Management
- Project Management
- Benchmarking
- Six Sigma Business Scorecard

Define

- Identifying customers and customer requirements
- Identification and selection of project
- Developing team objectives, goals and targets
- Process Mapping, SIPOC

Week 2

Measure

- Process Analysis and documentation
- Determining measurements
- Probability and statistics
- Properties and applications of probability distributions
- Six Sigma measurements
- Analyzing the measurement system
- Analyzing process capability
- Introduction to Minitab

Week 3

Analyze

- Exploratory data analysis
- Sources of variation
- Hypothesis testing
- Introduction to ANOVA
- Regression Analysis

Improve

- Developing solutions
- Design of experiments
- Full Factorial, Fractional & Taguchi methods
- Process Optimization/ Robust designs
- Response Surface Methodology
- Evolutionary Operations

Week 4

Control

- Statistical process control
- Advanced statistical process control
- Implementing process controls
- Attribute and variable control charts
- Monitoring progress
- Lean tools for control
- Measurement system re-analysis

Lean Enterprise

- Lean concepts
- Lean tools
- Total productive maintenance

Design for Six Sigma

- Quality function deployment
- Robust design and process
- Failure mode and effect analysis
- Design for X
- Special design tools

Project Work (Apply DMAIC)

Participants define a problem, perform cost-benefit analysis, identify critical-to-quality (CTQ) characteristics, establish a process map, analyze for root cause, improve the process, and implement process controls. At the end of the class, Black Belt candidates present their project work, and submit a project report.