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Six Sigma Best Results & High Performance

Introduction:

Six Sigma is a quality philosophy, a process for improvement, a quality metric, and can be used to establish and reach aggressive goals, which are integrated with your company business and operating culture. Implementation on a path towards Six Sigma levels of process and product quality will both satisfy and delight your customers.

Variation occurs everywhere! Understanding and reducing variation in service, manufacturing and sales and marketing processes are key to achieving Six Sigma performance. Measurement and statistical analysis are key elements for a successful program. The Six Sigma process and its linkage to Lean Production System will be discussed. The course is highly interactive where delegates will run a business simulation process applying their new knowledge to approach six sigma performances.

Who Should Attend?

Team Leaders, Managers, Superintendents, General Supervisors, Officers, Supervisors, Line Managers, HR Professionals

Course Objectives:

By the end of this course delegates will be able to:

- Understand Six Sigma and 10X rates of improvement and how they will best fit into your organization
- Experience variation, its impact and the fun and benefits of reducing it!
- Learn and practice eliminating the root causes of process problems
- Make decisions that are data driven

- Have Six Sigma practices become “habit forming” and “everyday conversation”

Course Outline:

- Introduction
- Review catapult description, history and operating principles
- Break class into business teams, have teams select a name
- Review functional roles for business teams and demonstrate
- Operation and initial setup of catapults
- Have teams set up and run catapults
- Collect baseline data
- Teams report on their results and findings
- Introduce “the company” each catapult is a separate division
- Flash cards set 1 first review document performance
- Six Sigma “What it is”, grounding
- Before Six Sigma the early days, the need to keep an open mind
- Variation- where it exists
- The way we work, the need for change
- What is Six Sigma, why we need it, and why it is different?
- Defects and the cost of quality
- Flash cards set 1 second review document performance
- Review the fishbone diagram
- Have teams build one for their process catapult
- Six Sigma, What is it? “a grounding”
- What is process management and its relationship to six sigma
- A review of classical improvement systems/methods
- The metrics of six sigma
- Common questions and assumptions
- Process capability
- When the six sigma approach makes sense

- A corporate model
- Six sigma, how it set up
- The path to six sigma
- 4 components of a six sigma program
- Flash cards set 2 first reviews, document performance
- Operate catapults and determine if process is capable
- Generate histogram and compare with specifications
- Make improvements to the teams catapult process
- Teams report on results and findings
- Six sigma cycle
- Six steps to six sigma for various functions
- Improvement tools and methods
- Flash cards set 2 second reviews, document performance
- Links to cycle time
- Six sigma mission statement, environment and principles
- A path to “getting started”
- Lean Production Systems definition
- LPS 7 types of waste
- LPS “key principles and 5 phase implementation cycle
- Operate catapult using prior improvements
- Team generates added set of improvement ideas
- Operate catapult using latest set of improvement ideas
- Team generates additional improvement ideas
- Six sigma roles within an organization
- Black belt descriptions attribute and function
- Six sigma black belt certification process
- Teams discuss their needs for black belts and where they would use them
- Develop a strategy and plan for the catapult business
- Flash cards set 3 first review document performances

- Review paper mill success story, challenges, and learning
- Six Sigma Black Belt projects
- Team initiation process and types of teams needed
- Team problem solving
- How to baseline your projects
- Process maps and value streams
- Project prioritization matrix and tree diagrams
- Area resource impact and commitment needed
- Flash cards set 3 second review, document performance
- Operate catapults using all improvement ideas
- Teams generate new improvement ideas
- Teams report findings, learning's and results
- Time to shoot and calibrate catapults
- Achieving Six Sigma performance
- Predicting performance: variation and probability
- Common variation Vs. special cause variation
- Variation can be used as a predictive tool
- Flash cards set 4 first review document performances
- Statistical process control
- Operate catapults using improvement ideas and generate a control chart with CAGS
- Determine process capability, estimate sigma level
- Teams review their findings
- Operate catapults using all improvement ideas
- Review chemical batch and continuous process success story
- Ways to measure improvement
- Black belt project documentation schemes
- Mistake proof fail safe (MPFS)
- Failure mode effects analysis (FMEA)
- Change management

- Flash cards set 4 second review, document performance
- Team selects a black belt candidate from their team
- Black belt and team using roles described in black belt process initiate a project, document project, present to teams
- Operate catapult using new black belt project plans and building on all improvement ideas to date
- Teams review their findings and final plans and recommendation for the black belt project
- Potential barriers to six sigma implementation
- Technical barriers
- Behavioral (team oriented) barriers
- Organizational barriers