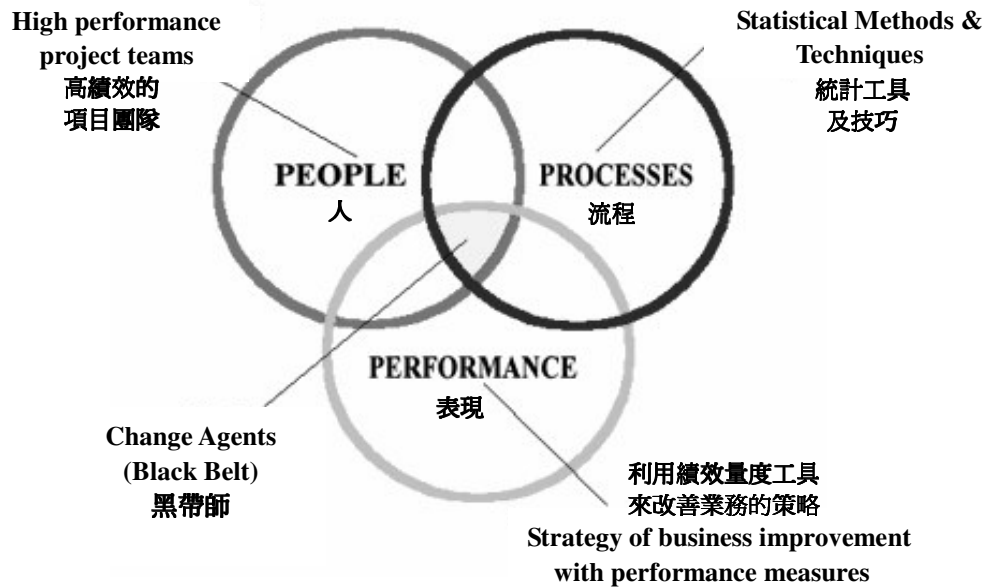


Business Performance Excellence Professional Development Program
New Certified Six Sigma Black Belt Workshop (3rd Intake)
 (Black Belt Project Application Approach)

12 December 2008 - 26 April 2009



Significant cost savings & benefits from hands-on projects in SSBB workshop:

透過參與六西格瑪工作坊的學員為其公司大幅節省成本及深獲裨益的項目俯拾皆是：

- A financial institute reduced the cost of handling complaints by HK\$3 million.
一家金融機構減省處理投訴成本約300萬港元。
- A garment factory achieved HK\$4 million savings per year.
一家製衣廠每年節省400萬港元。
- An electronics factory was able to cut prices, resulting in savings of US\$200K for its major customer in one year.
一家電子廠透過降低價格，協助其主要客戶節省20萬美元。
- An electrical supplier achieved cost savings of HK\$700K by cutting the product return rate by over 100%.
一家電器產品供應商將退貨率減低超過100%，從而節省成本達70萬港元。
- A chemical plant achieved financial benefits of HK\$500K per year by lowering the rework rate.
一家化學品廠房透過減低返修率，節省50萬港元。
- A chemical company achieved cost savings of over HK\$400K by improving its ordering and invoicing process.
一家化學品廠房透過改善其訂單及發票流程，減省成本達40萬港元。
- An electronics manufacturer reduced cycle times and achieved a 30% WIP reduction in 1 year.
一家電子製造商透過縮短周期時間，在一年內將半製成品數量減少30%。
- An E&M contractor improved the process lead time by 100%.
一家電機工程承辦商改善流程時間達100%。
- A precision parts manufacturer reduced the variation in measurements of finished parts by over 100%.
一家精密部件製造商將製成部件的尺寸偏差減低超過 100%。

Jointly Organized By:



Smart Process International

Supported By:



香港六西格瑪學會
Six Sigma Society of Hong Kong

Please circulate this leaflet to those who are interested.



Six Sigma & Six Sigma Black Belt

'Fact Based' performance energizes work processes and enables people and systems to achieve the results designed in the board room. Six Sigma's fame is derived from such intentions. Without it, there is really an empty shell called 'Quality' performance. As such, data, measurements and analysis form the basis for knowing and decision-making better.

The Six Sigma Body of Knowledge contains the work of a few significant individuals, sometimes known as quality gurus. Motorola, in the 1980s, created the brand name to recognize the critical role of measurements for controlling business performance, raising the performance standards, tracking performance and designing processes that are customer driven.

The best companies in the world, such as 3M, General Electric, Federal Express, Boeing, Bank of America, Vodafone, JP Morgan embrace Six Sigma and achieved tremendous business successes in the following areas:

- | | |
|-----------------------------------|----------------------------|
| ✓ Culture changes | ✓ Cost reductions |
| ✓ Market-share growth | ✓ Defect reductions |
| ✓ Customer relations improvements | ✓ Productivity improvement |

The statistical basis of the body of knowledge is the only possible means of factually describing, explaining and illustrating the alignment of execution with business plans. Organizations base decisions on facts. The statistical foundation enables managers to make decisions with a level of confidence because they focus on areas that are yet unknown.

The term "**Black Belt**" is used to describe "an individual who has developed a synergistic proficiency between the technical discipline and the **Six Sigma** methods, tactics and tools". "**Black Belt**" signifies the possession by an individual the expertise for using statistical tools and project work to achieve breakthrough profitability and quantum gains the company.

Objective

- To equip candidates with the knowledge and skills for six sigma project deployment in a company
- To develop candidates into competent Black Belts through personal coaching and project mentoring.
- To equip candidates with the skills to lead and coach Six Sigma teams on improvement projects.
- To develop candidates into internal "**change management**" consultants.

Target Participants

Executives, Managers, Professionals, and Administrators, of both the manufacturing and service industries.

Speaker

Dr. John Man PhD (Quality Mgt), MA(Edu), MBA(HR&Change Mgt), BA(Ind. Psy.), BA(Pol, Hist & Soc)
Dr. Man has over 20 years of experience in quality and related fields. He is Fellows of both the World Academy of Productivity Science and Certified Management Consultant. He is a Six Sigma Master Black Belts of both the Juran Institute and the American Society of Quality. He has conducted a series of Six Sigma training programmes in both Hong Kong and Mainland China, including Awareness (4 rounds), Green Belt (12 rounds), Black Belt (11 rounds) and Six Sigma Deployment (12 rounds). More than 1000 people have been trained by Dr. John Man. He has been a devoted Six Sigma Project Mentor for over 250 Green Belt projects and over 100 Black Belt projects.

Language & Mode of Conduction

The workshop is conducted in English, using a number of learning modes such as group discussions and workshops, experiential activities, and step by step project coaching.

Certification

1. Criteria for Local Six Sigma Black Belt Certification by Hong Kong Productivity Council and SPI:

- Attend all the formal action learning sessions
- Submitting the final version of the completed project based on a case provided by HKPC (The results will be ascertained by the proposed solutions and likely impact on the performance)
- Obtain a mean score of 75% from all the assessments of the program

2. Criteria for International Six Sigma Black Belt Certification Criteria (Optional)

- Successfully complete the Six Sigma Black Belt Workshop (all modules).
- Successfully complete the implementation of at least one in-company black belt project.
- The completed in-company black belt project should show a process capability improvement of at least 3 Sigma Quality Level (Cross Functional / Strategic Level).
- The completed in-company black belt project should show audited hard financial benefits (The amount varies with the type of business and nature of the organization).
- The certification fee of IAQC is HK\$5,000 per person. (It is not included in the course fee.)

International Six Sigma Black Belt Certification Body

Certificates will be issued by the International Academy for Quality Certification (IAQC). Members of the Board of Councillors in the IAQC include Dr. John Man (SPI), David Hutchins (DHI), Donald Dewar (QCI) and Dr. Dallas Blankenship (WCTQ).

Workshop Content

Module One - Enterprise-wide Deployment of Six Sigma

An understanding of the fundament of organization management especially models of performance excellence management systems, and project facilitation lay the ground work for Six Sigma deployment.

1. Business Performance Management
 - Fundamentals of Business Performance Excellence
 - Business Metrics : Dashboard, Throughput
 - Core Process Orientation : a Core Process Analysis (SIPOC), Value Streams
 - Understanding Lean Principles : Cost-Benefit Analysis
2. Business Orientation and Positioning
 - Business Competitiveness Analysis : SWOT and Balance scorecard
 - Customer and Stakeholder Analysis: Gaps, Kano, Critical Customer Requirements (CCR)
 - Risk Analysis: Pugh, Critical Business Requirements
 - Benchmarking: Quality Function Deployment (QFD)
3. Project Facilitation
 - Group Dynamics : Personality Analysis, Communications, Conflict Resolution
 - Project Documentation & Presentation : Project Charter, Storyboard
 - Team Management : Assigning Tasks, Time Management
 - Leadership Fundamentals

Module Two– Black Belt Project Identification and Consensus Building (Define Phase)

A careful assessment of the organization position in the market sets the stage for prioritizing areas that impact on business performance. The next stage is to build consensus among decision makers and project owners about the importance and benefits of the improvement project with Six Sigma Fact-Based Process Management Methodology. The considerations include:

- **Working** with the specific strategic decision making tools in Module One to identify key processes for making improvements.
- **Visualisating** the identified project to build consensus through Process Mapping, Workflow Modeling, and Critical to Customer Requirements
- **Active** search and validation of Root causes through various team based methods such as Fault Tree Analysis, FMEA and hypothesis testing
- **Selecting** the project by using decision tools such as Matrix analysis, Decision Tree, or PDPC
- **Setting** the project goal and expected financial impact for the selected processes.

Deliverable: Participants are required to submit a draft of the DEFINE Phase based on a case provided.

Method of Assessment: Complete an examination paper covering Six Sigma Infrastructure and Logistics.

Module Three – The Diagnostic Journey (Measure Phase)

The journey provides the core of scientific process management tools, statistical methods, to describe and test the validity and reliability of the process, and validate the vital root causes.

- **Measuring** the nonconformity/conformity of the project process to the specifications/standards. How to build a representative sample of the whole to determine this, the process's variance and deviation of the current capabilities, and the significant/insignificant of this deviation.
- **Depicting** existing processes by sample operation data and consolidate the information by descriptive statistics
- **Confirming** the key bottlenecks for measuring the current capabilities.

Deliverable: Participants are required to submit a draft of MEASURE Phase based on a case provided.

Module Four – Designing the Basis for Innovative Solutions (Analyze and Implementation Phase)

The active search for possible innovative solutions sets the stage for experimentation.

- **Analyzing** the value stream of the selected processes and assessing the Current Performance Levels (CPL).
- **Deploying** the Design of Experiments to confirm the statistical confidence of the selected solutions and executing the trials.
- **Using** the IAM WISE principle to launch a creative search for innovative solutions.
- **Tracking** the impact of the pilot runs and gather evidence for winning support for the innovations.
- **Measuring** the strategic, operational and financial impact of the improvements.

Deliverable: Participants are required to submit a draft of ANALYZE and IMPLEMENTATION PHASE based on a case provided.

Method of Assessment: Complete an examination paper covering Define, Measure, Analyze, and Implementation Phase.

Module Five – Holding the Gains (Control Phase)

The effective solutions are prepared for a roll out in the business process with guarantees for sustaining them.

- **Mistake-proofing** the inventions.

The project wrap-up includes a careful handover to the process owners and sponsors.

- Setting the control measures for tracking impact in practice and holding the gains.
- Taking the actions to overcome resistance to change through convincing presentation and action plans.
- Reflecting on the learning experience and set the stage for the next breakthrough journey.

Deliverable: Participants are required to submit a final version of the completed project based on a case provided.

Method of Assessment: Complete an examination paper covering Implement Phase.

Application of Six Sigma Black Belt Methodology in a Project

Candidates may opt for the application of the 'fact-based' process management in a 'real-time' work based project. Where this option is selected, a project mentor will be assigned to enable the participant to apply the methods and complete the project. Progress reports are reviewed in stages. The project mentor provides direct assistance and advice through a number of ways:

1. Email: Candidates send progress reports to the project mentor based on arranged schedules. The project mentor provides detailed comments and corrections to enable the candidates to make the changes.
2. Tutorials: Candidates meet the project mentor to clarify and discuss the progress of the projects.

