

What is DMAIC?

Key Learning Points

- 1. Recognize what Six Sigma DMAIC improvement is, and how it can be used to improve processes.
- 2. Identify different tools used in the DMAIC methodology.
- 3. Explain why different tools are used.

DMAIC Breakthrough Results





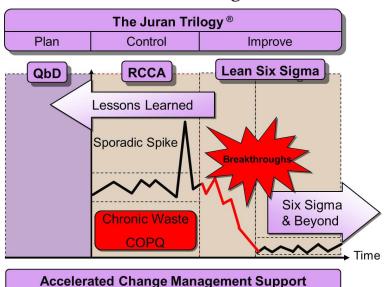
• It is a disciplined and rigorous method to solve complex problems by



"getting the facts" before solutions are carried out.

- It requires multi-functional projects to solve the most critical problems.
- It involves a multi-functional team led by a Black Belt or Green Belt, trained in the method and tools.
- It begins by understanding the problem from the customer point of view, this is referred to as the "voice of the customer (VOC)."
- It uses rigorous analysis to prove theories about root causes of the problem before it implements a change.

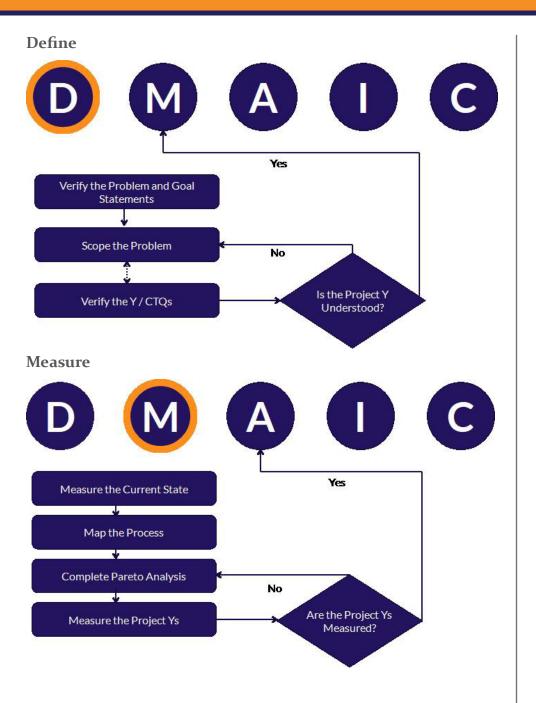
How to Think About Six Sigma



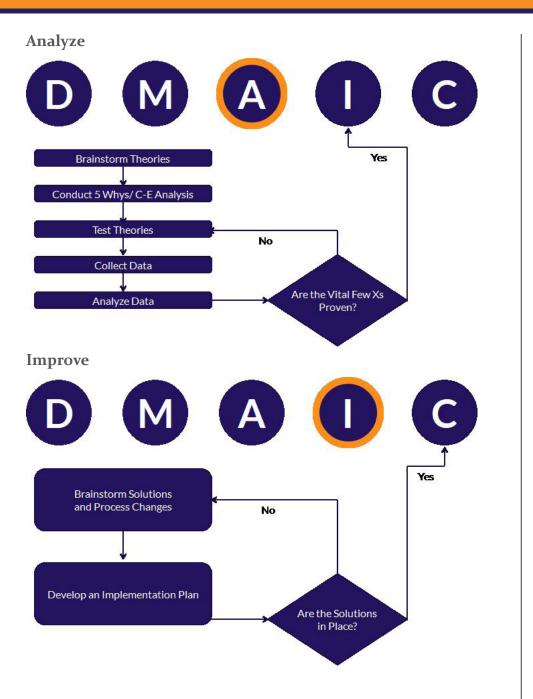
DMAIC Steps













D M A I C Design Controls End The Project Monitor the Process Update FMEA, MSA, Process Capability, and the Business Case Are the Project Goals Met?

DMAIC Tools

There are many tools that can be used in DMAIC projects, such as:

- Barrier and Aids Charting
- Box Plots
- Brainstorming and Affinity Process
- Cause-Effect Diagrams
- Data Collection
- Design of Experiments
- FMEA
- Histograms
- Hypothesis Testing
- Mistake Proofing
- Measurement System Analysis
- Pareto Analysis
- Process Capability
- Process Control Plans
- Pugh Matrix
- Risk Assessment



- Scatter Diagrams
- Selection Matrix
- SIPOC
- Statistical Process Control
- Stratification