THE SCOPE OF TOOLS AND TECHNIQUES

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OUTLINE

Define

- SIPOC
- Timeline of events
- Trend chart
- Run chart
- Process flowchart
- Current state map
- GANTT chart
- Stakeholder analysis

Analyze

- Why-why
- Hypothesis tests
- Statistical sampling

Improve

- Design of experiments
- Future value stream map
- Theory of constraints
- FMEA
- Poka-yoke

Control

- Process behavior chart
- Control plan
- Process audit
- Cost of quality

ACTIVITY

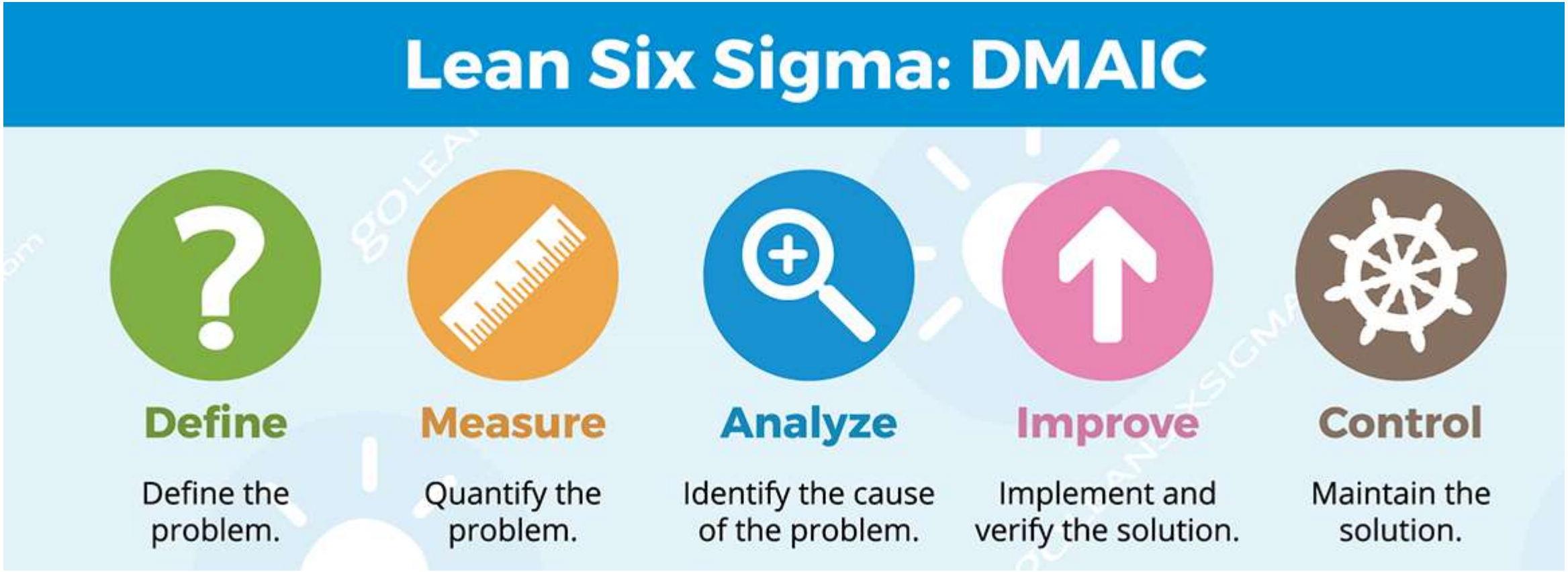
Who is considered to be the father of Six Sigma?

a) Bill Smith
b) Walter Shewhart
c) Jack Welch
d) None of the above

Bill Smith

ACTIVITY

Name the Lean Process by seeing the ICONs



PROJECT CHARTER

The problem statement and goal statement are the part of Project Charter.

The following deliverables should be part of the project charter :

- Business Case (Financial Impact)
- Problem statement
- Project Scope (Boundaries)
- Goal Statement
- Role of team members
- Mile Stones/deliverables (end products of the project)
- Resources required

Strategic Steps	Deliverables	Tools used
Define	Project Charter or Statement of Work(SoW)	Gantt Chart/Time Line Flow Chart/Process Map Quality Function Deployment (QFD)
Measure	Base Line figures	SIPOC (Suppliers, Inputs, Process, Outputs, and Customers) or IPO (Input-Process-Output) diagram
Analyze	Identified Root Causes	Cause-and-Effect Diagram 5-Why Scatter Diagram Regression ANOVA
Improve	Selected root causes and counter measures Improvement Implementation Plan	Affinity Diagram Hypothesis Testing DoE Failure Mode Effect Analysis (FMEA)
Control	Control Plan Charts & Monitor Standard Operating Procedures (SOP) Corrective Actions	Control Charts Poka-Yokes Standardization Documentation Final Report Presentation

REFERENCES

1. https://api.intechopen.com/chapter/pdf-preview/17405

2. **What is Lean Six Sigma** By Michael L. George, David T. Rowlands, Bill Kastle

THANK YOU