



Continuous Improvement Toolkit

Standard Work

Managing Risk

PDPC
FMEA RAID Logs
Fault Tree Analysis
Risk Assessment*
Traffic Light Assessment

Deciding & Selecting

Pros and Cons
Break-even Analysis
Force Field Analysis
Decision Tree
QFD
Kano Analysis
Critical-to Tree
Cause & Effect Matrix
Confidence Intervals
Probability Distributions
Graphical Analysis
Run Charts
Control Charts
Sampling
Brainstorming
Nominal Group Technique
Affinity Diagram
Lateral Thinking

Planning & Project Management*

Importance-Urgency Mapping
Cost -Benefit Analysis
Voting
TPN Analysis
Prioritization Matrix
Paired Comparison
Pareto Analysis
ANOVA
Hypothesis Testing
Scatter Plot
Correlation
5 Whys
Fishbone Diagram
Brainstorming
Nominal Group Technique
Affinity Diagram
Attribute Analysis
Visioning
Creating Ideas**

RACI Matrix
Stakeholders Analysis
PERT/CPM
Activity Diagram
Roadmaps
Project Charter
Gantt Chart
PDCA
Control Planning
Gap Analysis
Hoshin Kanri
Kaizen
How-How Diagram
Standard work
Simulation
TPM
Mistake Proofing
Pull Systems
JIT
Ergonomics
Work Balancing
Automation
Bottleneck Analysis
Visual Management
Flow
Value Analysis
5S
Wastes Analysis
SMED
Time Value Map
Process Redesign
IDEF0
Value Stream Mapping
SIPOC
Flow Process Chart
Process Mapping
Flowcharting
Service Blueprints
Designing & Analyzing Processes

Lean Measures
OEE
MSA
Cost of Quality
Reliability Analysis

Understanding Performance

Capability Indices
RTY
Descriptive Statistics
Confidence Intervals
Probability Distributions
Graphical Analysis
Run Charts
Control Charts
Sampling
Focus groups
Photography
Measles Charts
Data Collection
Critical Incident Technique
Observations

Understanding Cause & Effect

Design of Experiments
Regression
Multi-Vari Charts
Relations Mapping*
TRIZ***

Identifying & Implementing Solutions***

Value Stream Mapping
SIPOC
Flow Process Chart
Process Mapping
Flowcharting
Service Blueprints
Designing & Analyzing Processes

- Standard Work

- ❑ Successful solutions must be **standardized** in order to remain effective over the long term.
- ❑ Standardized processes is ensuring that solutions have been embedded into the organization methods and procedures.
- ❑ Standardizing **components** and **work methods** help achieving higher productivity.
- ❑ A standardized process provides more consistent results since the variation is reduced (by ensuring the work is always done the same way).

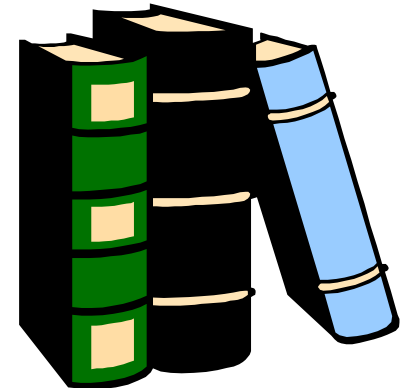


- Standard Work

Standard Work:

- ❑ A sequence of operations that must be followed to perform the most efficient and highest quality process.
- ❑ The purpose is to carry out the operations correctly and always in the same manner.
- ❑ It ensures that the process is performed:
 - Consistently.
 - In the best possible way.
- ❑ It should be available at the place.

Standard work is standard routines,
procedures and practices



- Standard Work

SOP:

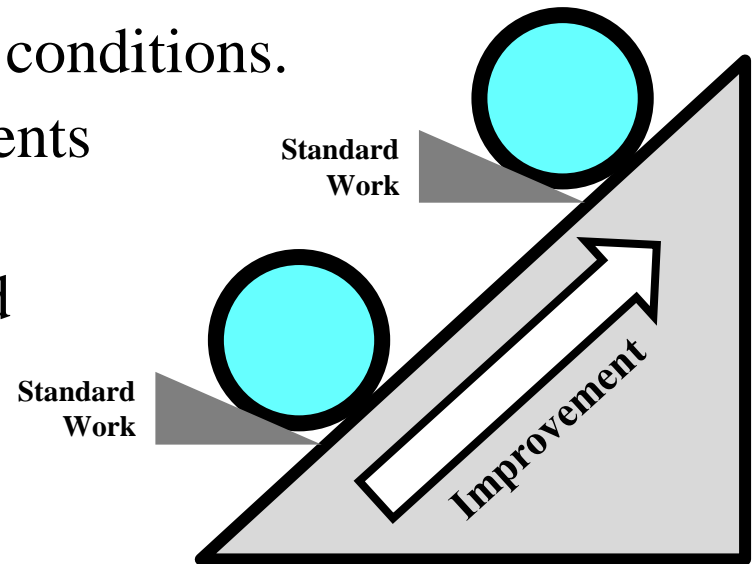
- ❑ A document which ensures that everything we do is done by everyone in the same way.
- ❑ It describes the procedure to be followed in a process.
- ❑ It must be distributed to the people involved in the particular process.
- ❑ A good practice is to display SOPs in the work areas.
- ❑ **The purpose of an SOP is to ensure:**
 - That operations are performed correctly.
 - That operations are always performed in the same way.
 - That operations are performed in the best possible way.



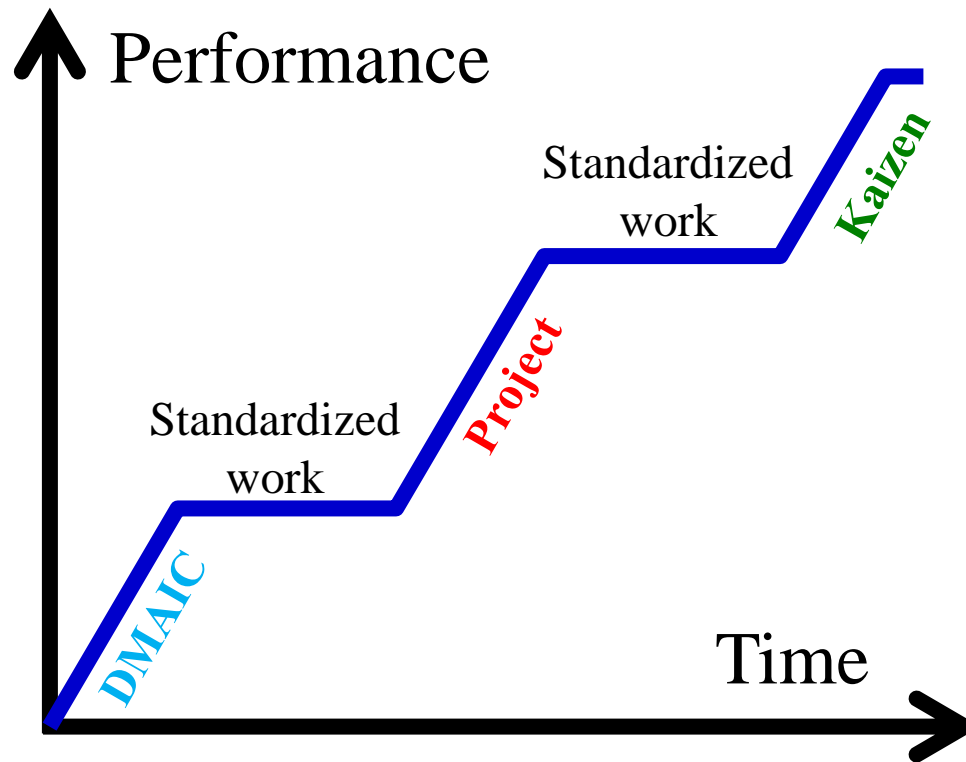
- Standard Work

Benefits of Standard Work:

- ❑ Provide basic knowledge for operators and managers on the job.
- ❑ Reduce the chances for unintended variation.
- ❑ Provide a basis for training new people.
- ❑ Provide a trail for tracing problems.
- ❑ Give direction in the case of unusual conditions.
- ❑ A method based on quality requirements ensures high quality.
- ❑ Safety ensured through repetitive and consistent steps.
- ❑ Productivity improved by smooth operations sequence.

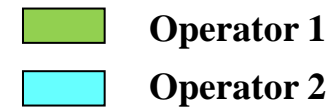
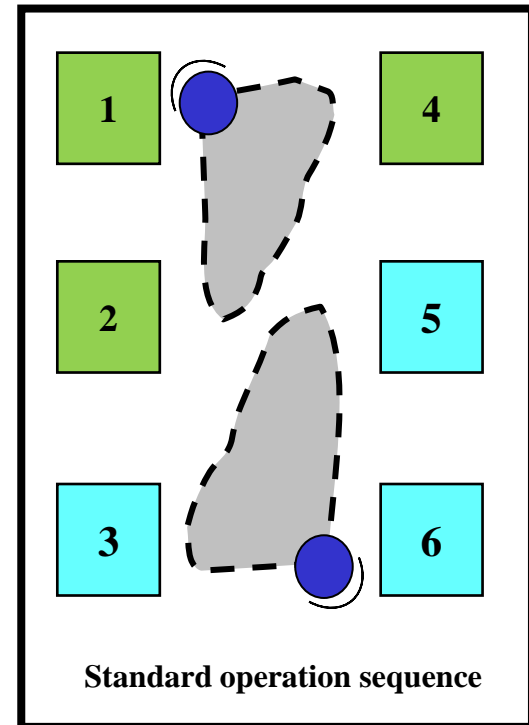


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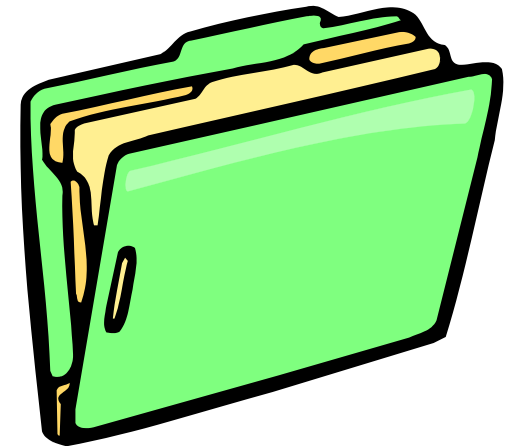
- ❑ All the improvements detected during your project have to be standardized (included in an SOP).
- ❑ Existing SOP documentation and training plans should be revised to reflect the process improvements.



- Standard Work

Tips:

- ❑ Document your project and ensure the new process and procedures are clearly explained.
- ❑ There is no point standardizing a process into systems and procedures that do not currently work.
- ❑ Be innovative and develop new systems if necessary.
- ❑ Ensure clear ownership.
- ❑ Ensure any legal or auditing obligations are met.
- ❑ Use visual systems wherever possible.



- Standard Work

Further Information:

- ❑ In manufacturing, standardizing of components is called **modularity** which is the use of exchangeable parts or options.
- ❑ A plant producing 10 different products from 1000 different components could redesign its production lines so they consist of only 100 different components.
- ❑ Visual controls (such as information displays and color coding) are used to reinforce standardized procedures.