

How process standardization will improve product quality, productivity, and employee morale

In general, if similar processes are being carried out by multiple people, there is a likely chance that more than one method would be involved in completing it. The difference comes from things like process sequence, cycle times etc., leading to changes in consistency of output, quality and training of people. These issues can be overcome by creating standards on how a process should be performed, through detailed work studies and using inputs of process owner.

“Start by doing what’s necessary; then do what’s possible; and suddenly you are doing the impossible.” – Francis Of Assisi

Every task requires certain rules that defines scope, quality, method, and safety to be followed. If you fail to set these rules, then you can't have a visibility over whether you are ensuring quality and reducing process errors.

What is a standardized work?

Standardized work defines the standard way of performing a task. It breaks down the process into work elements, which are sequenced, organised and repeatedly followed. It typically describes how a process should consistently be executed and documents current ‘best practices.’ Standardized work decreases ambiguity and guesswork, improves quality, boost productivity and employee morale

How to standardize work?

1. Creating a standard begins with recording of current work practices. Initially select a process or sequence which you want to standardize, then do a work study (Time study+ method study) for that process.
2. Time study is to record the processing time and method study is to record how the process is currently done.
3. Split the process into work elements while doing work study and collect at least 10 data samples for each work element with multiple process owners.
4. Analyze the data by comparing the time and method of each employee.
5. Try to figure out the wastes (NVAs) like unnecessary motion, transportation waste, over processing etc., and find ways to eliminate or minimize them.
6. Choose an optimal sequence for work elements to complete the process and fix it as standard work method.
7. If you find multiple best practices in the work element of different process owners, merge all the best practices and create a new work sequence.
8. While creating standards for each process, evaluate the process in terms of safety and ergonomics, taking into considerations like lifting posture and weight handling etc.,

Standardized Work consists of work elements that are organized in a way that ensures they are easily understood, consistently followed, and constantly improved by all team members.

Note: Takt time, work sequence, standard inventory are the elements of standardized work

Absorb what is useful, reject what is useless, add what is specifically your own.” – Bruce Lee

Benefits of standardized work practices

Standardized work is a core foundation for almost all other principles of lean/six sigma. Some important benefits include,



**Variability
Reduction**



**Ease of
Training**



**Product
Quality**



**Labour
Productivity**



Safety



**Employee
Morale**

- 1) Variability reduction** - If work practices are standardized, variability in product characteristics and quality will be substantially reduced. Slight variations will still exist due to different machine types, makes or models. These kinds of variation will have negligible impact because of the achieved consistency of process steps and sequences.
- 2) Ease of Training** - Clearly defined step by step work sequence and procedures will help train the new operators easily. This training resource will provide a continuous reference for the operators and thereby enable a new communication system for the team.
- 3) Product quality** - Every task will be completed in a same manner efficiently eliminating the ambiguity and guesswork by different employees. With reduction in process variation, consistency in quality of a product at each stage of manufacturing will improve significantly.
- 4) Productivity** – With a clear set of instructions to work with, in order to complete a task, employees will spend less time trying to figure it out and more time performing the task. Standardization is associated with leaner’s more functional performance. Meaning, your organization will be able to cut waste (by eliminating unwanted motion and transport wastes in work sequence), and do more with the available resources.

- 5) **Safety** - Standardized Work will enable employees to avoid unnecessary risks. There will be no need to attempt shortcuts or try to improve efficiencies on the fly—as the processes in place would have already been evaluated in terms of safety and efficiency. Standardized processes will simply make work safer and worry-free.
- 6) **Employee morale** – Work standardization improves employee morale significantly. If processes are governed by standards, it helps employees to do efficient and high-quality work consistently. It helps avoiding frustration and humiliation arising out of inadequate or incorrect work. Employees will take a sense of ownership and pride in the work they do, master it and take pride in honing.

“Good leadership consists of showing average people how to do the work of superior people.” – John D. Rockefeller

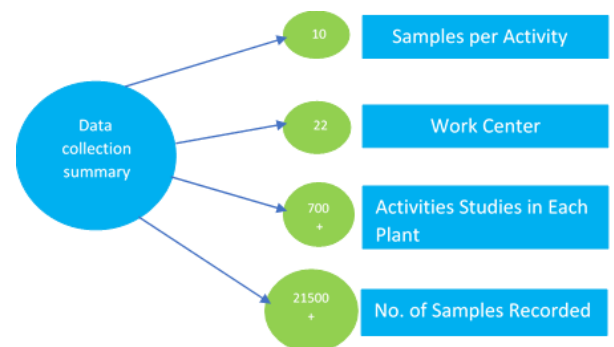
Case study: A case of how a leading footwear company achieved operational excellence through process standardization

Background:

A leading footwear manufacturing company with more than 10 manufacturing units across the country wanted to standardise its manufacturing practices. All the units are producing footwear of different models equipped with the same kind of machinery, material and processes. But the work practices, quality of work and production output differs from one unit to other. The company wanted to standardize its work practices and operations for all the units in order to achieve consistency in results and for internal benchmarking.

Work Study – Select & Record

Three of their top-performing units were chosen for the study. The entire manufacturing unit was split into 20 zones and detailed work study was carried out - (Time study + method study) for all the work elements of its entire operations. Video recordings were taken for critical and simultaneous activity.



Examine – Analysing the sequence

All the samples were analysed to identify the best work practices with major NVAs eliminated. Work standard was created by sequencing the work elements for optimal completion of the task. This was done by comparing the best practices of different process owners across different plants.

Define & Develop – Creating standards

For some operations, the work elements of two different process owners were merged and a new work sequence created. Standard time needed to complete the task as per the new sequence was computed using the [Maynard Operation Sequence Technique \(MOST\)](#). While creating standard work sequence and time, safety and ergonomics were taken into consideration.

Benefits

- 25% Scope for improving productivity identified and implementation underway.
- 15% over staffing identified through elimination of 100+ NVAs, improved work methods, Kaizen ideas and minor layout changes.
- Manpower planning, capacity planning and cost control became easier - a system for real time manpower planning against production plan was established.

Challenges faced

- Identifying a representative sample from a wide range of product type and variety
- Availability of material & production plan for recording the samples during the study
- Each unit had different layout & practices, posed a different challenge while suggesting improvement plans
- In general tendency of the process owner is to perform it faster or slower while video graphing, asking them to perform normally itself was a challenge