

Wednesday's Words of Quality- Start with Standard Work for High Quality and Reliability

Let me begin this month's Lean lesson with the conclusion:

Achieving Standard Work is hard work but the necessary 1st step in achieving high quality and reliability.

There are 2 main enemies of quality- lack of work standardization and poor communication.

Achieving **Standard Work** is the first step to achieve work standardization by ridding work variation to obtain highly consistent and reliable work products and services. As an example, don't you just hate it when shopping for a new pair of slacks requires trying on 4 pairs of the "same size" before one fits correctly on your perfect form? You just experienced human work variation from lack of **Standard Work**.

As leaders, many see standardization from the **macro** level of fixing something on a grand scale. That can be effective.

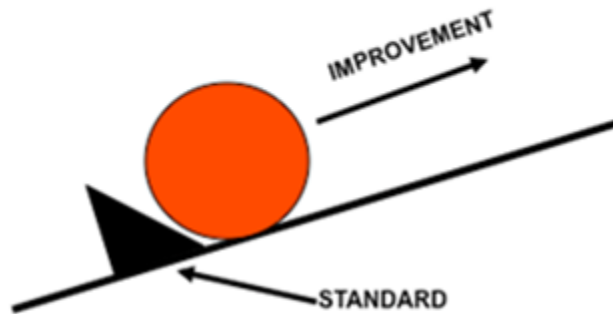
But I see it differently now.

My many years of following the management principles of Deming as practiced in the lean culture of Toyota tell me that another approach must be undertaken by leaders to be truly effective in creating and sustaining standardization.

That approach is at the **micro** level, or at the level of the worker, where the work actually takes place and true value to the patient is created. In manufacturing this is known as the "shop floor". For us in healthcare this is where we work with each other in service to each other and to the patient. This is also known as the gemba.

Standardization is the practice of setting, communicating, following and improving standards. A **standard** is defined as the current one best way to safely complete an activity with the proper outcome and the highest quality. A **standard** is not static but can be viewed as a milestone on the path to a target or goal.

Mike Rother has depicted this misconception of a standard as a stop that prevents backsliding of current processes in the following figure (adapted from Rother M: [Toyota Kata](#). New York :McGraw Hill, 2010).



Standards depicted as a wedge that prevent backsliding.
It doesn't work this way.

Standardization relies on **Standard Work** - a defined *activity* that secures improvement and is a never-ending process of review and improvement. This also requires standardizing **connections** (the hand-off) and **pathways** (steps in the process flow). These are the key elements of work design standardization that reduce variation that in turn leads to poor quality.

Standard Work must be created by consensus of those who actually do that work. This is standardization at the **micro** level where the defects are received, made and passed on by the workforce.

Standard work is more granular than a written standard operating procedure. In order to be effective, **Standard Work** must be defined at the level of:

CONTENT- Define the task and the details of the task

SEQUENCE- What order do the tasks happen?

TIMING- How long does it take to process?

LOCATION- Where are the tasks taking place?

OUTCOME- What result is clearly expected?

In this manner **Standard Work** -

1. Becomes a baseline for all improvement activities

2. Is the initial step to controlling variation and enhancing quality
3. Is agreed-upon work procedure that meets requirements
4. Is each process step defined & performed repeatedly in the same manner
5. Removes variability; the enemy of quality, maximizing performance
6. Minimizes waste; requiring costly rework, wasted time and resources
7. Must be adhered to, documented and communicated
8. Must be audited for compliance
9. Is only good as it satisfies the current need
10. Is not static but must be revisited and improved as conditions require
11. Also entails defining standard connections and pathways
12. Is hard work!

Standard work is the basis of standardization and yet not a very easy thing to obtain as a consistent practice of all workers doing the same task. Despite the presence of a standard operating procedure (SOP), workers can get quite creative when carrying out the steps of work defined in a SOP. Standard work also requires a production cycle with predefined connections between "customers" and "suppliers" and a predefined pathway that the product or service travels. These latter aspects of the work connections and the work pathway are additional opportunities for standardization of work in order to minimize variation.

When performing root cause, our own experience with inefficient and defective work is that there is often a violation of these work rules, defined by Spear and Bowen as the *DNA of the Toyota Production System*. (Spear and Bowen 1999)

We often find that we either don't have, could refine better or lack compliance with existing ***standard work, connections or pathways***.

Standard Work and PDCA Culture

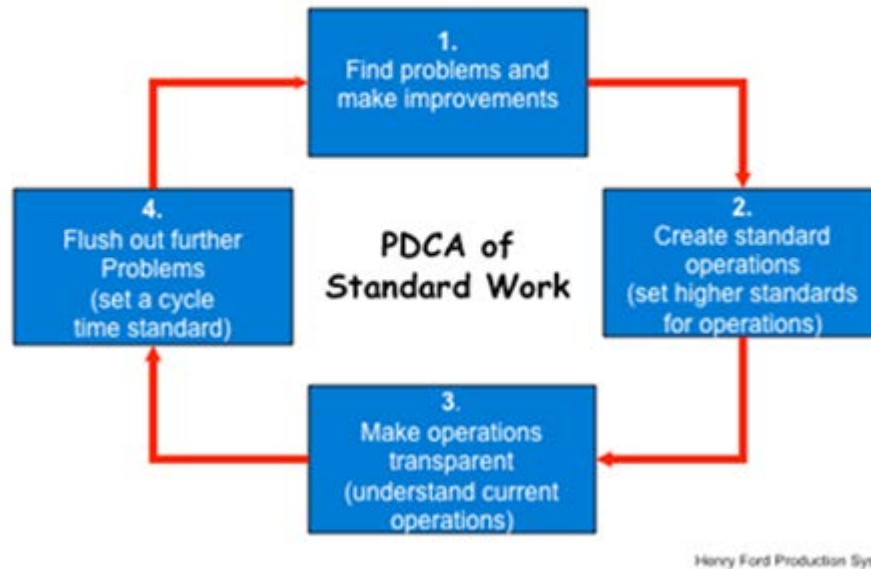
To be effective in using standardization as an opportunity for continuous improvement, leaders must create for workers a means to discuss a no-blame defective handoff by meeting with their "customer" to discuss processes not people at fault.

Essentially, you need to foster a culture that drives the 4th work rule defined by Spear and Bowen in order to obtain PDCA based continuous improvement by the empowered worker, at the level of the work, with their leader, based on scientific data.

Each employee is a "customer" who receives a derivative of the specimen, and in turn, a "supplier" who processes the received derivative and forwards the product or service for the next step in the process. Communication within customer teams is encouraged to document defects and then to communicate these during customer-supplier meetings called to address a problem. In this setting, the "supplier" team is expected to understand the "customer's" expectation then re-evaluate and improve their own process steps to satisfy that requirement.

This approach adapts PDCA (Plan, Do, Check, Act) to the standardization process itself in pursuit of the perfect process. Standardization then, is dynamic, not static, and looks like this in the figure below.

Cycle of Improvement in Standardization



Most importantly, standard work is **sustained by managerial support of a culture** designed to:

- Create structure for process improvement to take place by workers, aligned by work cell with their designated Team Leader for quality (appoint one)
- Create opportunity for horizontal communication between work cells to take place based on requirements that drive work standardization (customer-supplier meetings)
- Support teamwork and ownership of the process by every worker
- Reward workers who suggest and make improvements
- Allow (don't punish) mistakes and encourage experimentation
- Create a system for capturing and implementing employee suggestions
- Offer training to every worker on improvement methods and optimal work design
- Hold regular meetings to drive and sustain quality initiatives

The outcomes of standardization can have wide ranging effects.

For the HFHS this translates to:

- Reduced variability
- Reduced waste
- Enhanced consistency, throughput, productivity
- Reduced costs \$\$ and rework
- Increased profit margins

For our Patients this translates to:

- Improved quality and clinical outcomes
- Shorter, more predictable lead and wait times
- Improved satisfaction and retention

For the Workforce at all levels this translates to:

- Easier to learn new operations
- Easier to shift to different operations within a cell or operations in other cells or work areas
- Easier to see problems and contribute improvement ideas
- Accountability and higher engagement
-

Standardization is hard work, and even harder when it must involve all employees engaged in the processes. But that's the rub.

As Thomas Edison said- *"Opportunity is missed by most people because it comes dressed in overalls and looks like work."*

We are all involved and accountable for making our system of work better. Our patients are counting on us for that.

References:

-Rother Mike: Toyota Kata. Managing People for Improvement, Adaptiveness, and Superior Results. New York :McGraw Hill, 2010).

-Spear Steven and Bowen Kent H: Decoding the DNA of the Toyota Production System. Harvard Business Review, Sept-Oct, 97-106, 1999

+++++

Henry Ford Production System Lean Training

Lean Silver Certification for Lean Establishers (14 hrs. CME)

April 27-28, 2017 September 21-22, 2017

Lean Gold Certification for Lean Cultural Transformers (7 hrs. CME)

November 7, 2017