When we were young, our parents and grandparents would occasionally admonish “waste not, want not.” It was their way of letting us know that if we didn’t squander what we had, then we would always have what we required. This axiom is just as true in our work lives as it was back when we were enjoying the warmth and abundance of Grandma’s kitchen.

I can’t say for certain that Eiji Toyoda’s grandmother ever used this phrase when he was growing up or how it might translate into Japanese, but there is no doubt that Mr. Toyoda brought an appreciation for the elimination of waste in enterprise to the global business community. What he taught has direct application to our industry, and if followed, can yield incredible benefits in productivity, throughput, and, most importantly, value to your customers. With a simple understanding of the history and basic tenets of Lean Six Sigma, a comprehension of Lean’s concept of Value, and the definition of what Lean considers to be Waste, you can soon begin to improve your business without the necessity of a black belt.

Mr. Toyoda was educated at Tokyo Imperial University as a mechanical engineer and is a member of the family that founded Toyota Motor Company. After a visit to one of Ford’s manufacturing facilities in Michigan, Toyoda was awed by the size of the facility, but determined that his own factories would not fall victim to what he saw as its inefficiencies and quality issues. The system he eventually developed and implemented became known as the Toyota Production System, a philosophy that generally became known as Lean Manufacturing or Just in Time Manufacturing. At its core was the desire to increase speed and quality, while designing out muda, or waste, from the production process.

Mr. Toyoda’s system was adopted by companies around the world and soon evolved into a new philosophy called Six Sigma, popularized by Motorola and General Electric. Six Sigma also focuses on the elimination of waste in production operations and calls for an improvement in quality, the minimization of variability, and the reduction of defects and rework (think rewash). A “six sigma” level of quality means that you have fewer than 3.4 defects per million operations. Imagine if you only had to rewash 3.4 items for every million that went through your plant! This is a difficult level to achieve with current technology and limited financial resources, but that’s why the implementation of these philosophies is called continuous improvement; they are journeys, not necessarily destinations.
For simplicity, any process within your operation that does not confirm to those three simple tests is considered Non-Value Added and is, therefore, a candidate for elimination. In some cases, however, there are processes that do not create any value under the definition stated above, but which can’t be eliminated because of the limits of current technology or financial resources (recall that a Six Sigma level of quality would mean that you would rewash just 3.4 out of every million napkins processed).

At its core, Lean Six Sigma is an all-out war on waste. Now that you understand the basic concepts of Lean Six Sigma and what it considers to be Value, you can begin looking for and eliminating waste within your organization and its production processes.

According to Lean Six Sigma, there are eight wastes that need to be eliminated. The simple mnemonic, TIM WOOD U (think: Tim Wood University), is universally understood to represent the first letters of each of the eight wastes and can help you remember what to eliminate:

- **Transportation** is defined as the unnecessary movement of products or materials within an operation. This is a great place to start looking at processes from the customer value perspective. Customers want you to deliver clean items from your plant to their places of business, but the goods do not change fit, form or function along the way and, as a result, this would be considered a Non-Value Added process. But since current technology can’t provide a means of getting the goods from your plant to your customers without loading them on a truck, the best you can do is ensure that your routes, trucks and drivers are as efficient as possible. Similar examples of potential wasted transportation include moving products from one place in your plant to another in carts and slings.

- **Inventory** is considered a waste when excess products are neither being used by customers nor being processed by the plant. This is one reason why good operators constantly review their linen and garment utilization and regularly cull their stock.

- **Motion** is the unnecessary movement of people, including processes that have more steps than necessary. Time and Motion Studies can help you eliminate extra steps within processes, thereby increasing your efficiency, but you should also take a careful, hard look around your plant and find ways to shorten transportation paths, move workstations closer to the previous step in the process, or have leads bring work to employees’ workstations instead of having workers wander around looking for their next batch of goods to process. Extra motion takes time, and we all know that time is money.

- **Waiting** is another place where the “time is money” adage comes into play, and is defined as wasting time for the next step in a production process. Any time your employees or machinery are idled due to equipment downtime, maintenance issues, or a lack of product from the previous step in the process, you have the opportunity to eliminate the waste of waiting. For a quick suggestion on how to eliminate waiting, you should begin tracking down time on all equipment as well as taking the time to track your employees’ paid time (as reflected by the time clock and their paychecks) as compared to productive time (the actual time spent working on productive tasks).
Most operators who take the time to make this analysis are shocked by the disparity.

**Overproduction** sounds similar to its wasteful cousin, **Overprocessing**, so be sure not to get them confused. When an operation is wasteful due to overproduction, it is because it produced more products than it needed to. In our industry, examples of this include washing out and maximizing tunnel washer uptime. There are two easy ways to remember to avoid overproduction. The first is to consider that if you don’t need it, you shouldn’t produce it. And the second is to remind yourself that Mr. Toyoda called this Just in Time Manufacturing, not Just in Case Manufacturing!

Failing to provide the proper tools, training and expectation to your employees is one way to commit this waste.

**Overprocessing**, on the other hand, is producing more than your customer wants or at a higher quality than is required or expected by your customers. One of the best examples of this was the plant that pressed all of its customers’ workwear. When the customers were polled, they overwhelmingly indicated that they didn’t want the majority of their garments pressed. Making matters worse, the operator wasn’t charging for pressing the garments, thereby devaluing its services.

**Defects** is perhaps the best understood of the eight wastes. Any time you have to do something to fix a problem that you created, you are wasting due to defects. In our industry, defects that create waste include rewash, poor finish quality, and shortages. Find the root cause of the defect, and you’ll begin to eliminate the waste.

Some adherents to Lean Six Sigma leave the final waste, **Underutilized Human Resources**, off the list of wastes, but in a labor-dependent industry like ours, it is an area to which you must pay attention. Simply stated, underutilized human resources results from failing to properly put people’s talents, skills or knowledge to good use within your operation. Failing to provide the proper tools, training and expectation to your employees is one way to commit this waste. Another way is to hire someone, find they’re not suited to a particular task, and then terminate their employment. You spent a good amount of time hiring and vetting your employees, so before you are too hasty showing them the door, stop and ask yourself whether or not you’ve hired the right person, but put them in the wrong job.

Eiji Toyoda probably never gave a second thought to the production processes of the Japanese laundries that processed the uniforms for his employees at the Toyota Motor Company, or how the philosophy and methodologies he developed for his family’s automobile factories might someday help laundries throughout the world to improve their operations. Nevertheless, by understanding a little bit about Lean Manufacturing, Value, and Waste, each operation within our industry can be put on the path toward continuous improvement, thereby becoming the living embodiments of Mr. Toyoda’s developments, and our own grandmothers’ admonishments.

**Eliminating Waste**

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