

LEAN INSIGHTS

Lean 101: Insight, advice and a book review

By Dr. Timothy D. Hill

This column starts a new series about the practical delivery of successful Lean in workplaces.

I have been bringing Lean to a wide variety of work settings around the globe for more than 25 years, and I have had the opportunity to meet and work with early Lean leaders such as Deming, Ishikawa and Imai. In the 1980s, I was researching "Understanding the Management Practices of the Pacific Rim" and dividing my time between North America and the Far East. I was flooded with requests by people who wanted to know how offshore competition could get costs so low and quality so high. Incidentally, this was around the same time that Japan's Ministry of International Trade and Industry's work was going on in the U.S. — work that eventually led to *The Machine that Changed the World* and the introduction of the word "Lean" to describe the Toyota Production System (TPS).

If you want to bring Lean to your workplace, you need to get it right from the start. This means two things — proceed with a plan (don't tinker) and avoid confusing "better" with "best."

Don't tinker. To proceed with a plan means that you've been smart about selecting the areas you want to introduce Lean to. Make a plan

and begin with data. One of the biggest challenges that I've seen from client organizations is that leaders support Lean nominally and don't leave their offices to see the real problem in the real workplace, and strive to gather real data. Toyota calls this the three "Reals" and requires that everyone go to the place where the problem occurs to see the problem-solving process with "eyes on" and real data.

If you tinker, you're likely to put a Band-Aid on a problem when a permanent countermeasure was required. Companies that tinker wind up managing their problems and not eliminating them. Cast a critical eye to your organization. How many people are engaged in managing problems as opposed to getting rid of them altogether? The purpose of Lean is not to manage problems, but to eliminate them. After you've delivered a Lean solution to eliminate a problem, check on it to make sure your countermeasure is performing as you hoped it would. If it worked, great! Now move on to the next challenge identified by your earlier problem solving. If it didn't work, act on the situation by going back to your plan and revising it as necessary. This should be familiar to you as the PDCA cycle (Plan, Do, Check, Act), and it transforms problems to standard work. As TPS leaders have said, there is no continuous improvement without standard work.



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Alternately, it's too hard to improve when there is too much noise around you.

Don't confuse better with best. Many organizations have people who love to look for data, who are analytical or who are cautious and want to find the best answer before going forward. These people will cause great delays in your Lean efforts. They will research and collect data for so long that the original problem will get bigger. These people will be busy, but they certainly won't be adding to the solution.

A good improvement is often better than the best improvement because you can implement it now and start the continuous improvement cycle. I often need to remind people that this is a process and not a destination. There is no magic bullet that delivers Lean success instantly.

Initial problem solving should begin with a ranking of various problems that are real issues in the workplace. From this ranking, create a "top-down" or Pareto chart, and attack problems from the largest to the smallest.

Find the actionable root cause for the first problem you select to eliminate. When you find an actionable root cause (there is likely more than one root cause, but choose the one you can act on), create a countermeasure that will reduce the problem to zero. Zero will always be your target because you want to get rid of the problem.

Once you've deployed your countermeasure, keep an eye on things to make sure that they are going as planned. Don't assume that everything will fall into place and that everyone will be happy. Engage others in your solution and be sure to let everyone know if the plan worked. Advertise your successes with obvious displays in the "Lean Successes" board you've got in your workplace.

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QUESTIONS FROM THE PLANT FLOOR

This question came from a plant manager whose facility was involved in a municipal Lean project. "We did the 5S and Kaizen events as directed, but almost two years later, we're worse than when we started. What went wrong?"

In follow-up conversations, it would seem that the 5S events and Kaizen blitzes were successful. Things were put away, shadow boards were built for tools and little things were done here and there.

The failure came from not training people to see how actions are connected. They did not tie their efforts into anything that looked like a co-ordinated effort. They didn't change things because it would reduce errors, cycle time or eliminate work-arounds; they did things to address what they thought were "low-hanging fruit" in order to demonstrate early successes.

They did not train people in value stream mapping to highlight real improvement opportunities. Nor did they present visual progress maps to show how their Lean efforts were driving down real problems in order to gain the interest of others. There was no initial audit of issues, which would also have shown purposeful areas in need of improvement.

Lean is solidly connected to fact-based leadership. This municipal effort threw a few Lean tools on the wall and then waited to see what would stick. As Dr. Deming once told me, "Never tinker." Your Lean efforts will fail if you tinker.

If you follow a few of the "they didn't" items above, your own Lean efforts will likely be much more successful.

If you have a Lean question that you'd like Dr. Hill to answer, please send him an e-mail at drtim@kyoseicanada.ca.

BOOKS YOU SHOULD KNOW

One of my favourites is also one of the oldest. Taiichi Ohno's *Toyota Production System: Beyond Large-Scale Production* was referred to me by everyone I spoke to in Japan while researching a book of my own in the 1980s. People spoke about the (then) upcoming book as the logical story of the birth of the Toyota Production System. I had seen some translated chapters from his earlier work — *Workplace Management* — and heard rave reviews.

In this classic text, Taiichi Ohno — inventor of the Toyota Production System and Lean manufacturing — shares the genius that sets him apart as one of the most disciplined and creative thinkers of our time. Combining his candid insights with a rigorous analysis of Toyota's attempts at Lean production, Ohno's book explains how Lean principles can improve any production-oriented endeavour. A historical and philosophical description of just-in-time and Lean manufacturing, this work is a must-read for all students of human progress. It continues to provide inspiration and instruction for those seeking to improve efficiency through the relentless elimination of waste.

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