

Learning KAIZEN from TOYOTA



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Learning Kaizen from Toyota

“Toyota implements a million ideas a year. ... It’s the reason they’re one of the planet’s ten most profitable companies,”¹ says Matthew May in “The Elegant Solution.” He had a challenging assignment: “*We need to translate the Toyota Production System for the knowledge worker. We really want to figure out how to bring the levels of employee productivity, engagement, continuous improvement and constant creativity found in our Toyota factories and warehouses to the corporate environment.*” In this book, May discusses three principles and twelve practices to accomplish this goal.

Principles:

1. *The Art of Ingenuity*

The pressure to innovate falls on the individual – every *single* individual in the company. First, ingenuity means connecting with your work, whatever it is, understanding why it is important, and making sure that it is a good fit with your skills and interests. If it isn’t, create a job that is. Second, ingenuity means constantly experimenting to figure out how to do that job better. Third and most important, everybody is expected to use their ingenuity – *everybody* – all of the time.

2. *The Pursuit of Perfection*

There is no such thing as perfection – but aspiring to achieve perfection is nevertheless the goal. Good examples of this principle will be shown during the workshop.

3. *The Rhythm of Fit*

Innovation is always obvious – after the fact. But discovering the obvious is not such an easy task. It requires that you are grounded in today, yet have a clear vision of tomorrow. It requires systems thinking, rather than program thinking. And it requires the right social context – one that inspires rather than suppresses creativity.

Practices:

1. *Let Learning Lead*

Real learning is not about books or lectures or workshops. It is about constantly trying things and finding out what works. Learning involves asking the right questions much more than finding the right answers. Learning means moving the Scientific Method from PhD programs in universities to the shop floor and the knowledge worker. Learning comes first.

2. *Learn to See*

Walk in the shoes of the front line worker. Live the life of the customer. Data is important, but it is interpretation that converts data into information. Learn to walk around and observe

¹ “The Elegant Solution: Toyota’s Formula for Mastering Innovation” by Matthew E. May, Free Press, 2007, p xi-xii

what is really happening. Watch your customer, become your customer, involve your customer.

3. *Design for Today*

As good as Toyota is at anticipating the future, their innovations are always grounded in clear and present needs – demographic shifts, energy shortages, safety concerns. The idea is, as hockey great Wayne Gretzky once said: “Skate to where the puck is going to be, not where it has been.” Market leaders don’t so much create markets as they understand where the market is going to go, and skate there.

4. *Think in Pictures*

Kenji Hiranabe will show how mind maps can be used to help everyone picture what is in their mind.

5. *Capture the Intangible*

“The most compelling solutions are often perceptual and emotional.” May says. For example, when the Lexus team was designing the car, the entire team spend three months living in luxury in southern California, just to feel what their customers felt. They learned that luxury cars were not transportation, they were a safe sanctuary and quiet escape. Provide an ‘experience’ instead of a ‘product’.

6. *Leverage the Limits*

May tells a wonderful story about Toyota’s North American Parts Operations (NAPO) stretch goals. In the year 2000, Jane Beseda, newly appointed vice president and general manager, challenged NAPO with ten audacious and mutually competing goals, including inventory reduction, response time reduction, and waste reduction. The goals were such that they could only be achieved by departments working together across what had been organizational boundaries, and the results were nothing short of amazing.

7. *Master the Tension*

A McKinsey study on global productivity in the late 1990’s found that the companies which improved productivity the most were invariably companies in highly competitive industries. These companies had to find a better way of doing things – it was a matter of survival – but could not afford to throw money at the problem. We agree with May – we find that the biggest barrier to Lean development is often *too much money*.

8. *Run the Numbers*

There is a place for instinct, but temper it with facts. Think hard about what the important numbers are – and they are often not the obvious ones. With insight into what numbers are important, capturing and analyzing data will confirm instinct (or not) and uncover patterns that are otherwise invisible.

9. *Make Kaizen Mandatory*

Standards exist to be challenged and changed. Standards are the current best-known way of doing things, and they are documented and followed by everyone. But the objective is to change the standard, to keep on improving the way things are done. Taiichi Ohno once said “Something is wrong if workers do not look around each day, find things that are tedious or boring, and then rewrite the procedures. Even last month’s manual should be out of date.”

10. *Keep it Lean*

Scale it back, keep it simple, make it flawless, let it flow. May notes “We are hardwired to hunt, gather, and horde. To think *more*. So lean runs counter to human nature. Getting lean requires fighting the basic instinct to add, accumulate, store. Lean requires a precise understanding of value: the who, what, when, where, how, and why of the customer’s need. It means getting that value to them without complexity creeping in.

Examples:

1. *Jidoka*

Sakichi Toyoda started out to improve on the hand loom his mother used to weave cloth. From 1890 until 1924 he continuously improved upon the design of looms when he and his son patented one of the most sophisticated and automated looms in the world. The idea behind this loom is called “jidoka” a made-up word meaning automation with people in mind. In practice, “jidoka” meant creating a loom which could stop itself whenever anything went wrong. When Sakichi’s son Kiichiro applied the same idea to automobile manufacturing, he added an “andon” cord to the line so workers could pull the cord and stop the line any time they had a problem. “Andon” means lantern – and when an andon cord is pulled, a light goes on, alerting everyone to find and fix the root cause of the problem.

2. *Yatai*

A “Yatai” is a vendor cart used to sell food. When the idea is applied to manufacturing, you end up with a workcell in which one person or a few people can make a product by themselves, instead of having workers lined up on an assembly line doing just their part. Assembly lines create big piles of inventory between workstations, while workcells allow complete jobs to be done rapidly and Just-in-Time.

3. *Kaizen*

“Kaizen” comes from the Japanese characters Kai 改, which means change – and Zen 善 which means good. So Kaizen means change for the better. Taiichi Ohno, the father of the Toyota Production System, once commented that if work standards are a month old, they are out of date and the workers need to work harder at their real job – that is, constantly improving their processes.