Rapid Cycles of Learning

a Partners In Improvement Briefing by

conwaymanagement

Continuous Improvement = Continuous Learning

In our recent Partners in Improvement forum, we discussed the concept of Rapid Cycles of Learning and Improving. Continuous improvement is all about learning. Learning what the customers think and value (something that continuously evolves), learning

> "There are no secrets to success. It is the result of preparation, hard work, and learning from failure." — Colin Powell

where the opportunities are, learning where the waste is and what the root causes are, learning what the people closest to the work see and think, learning how the management system is fostering or impeding high quality performance, learning how well our solutions accomplish their objectives, learning how to further improve. The Deming Cycle, Plan-Do-Study-Act, is a cycle of learning.

Speed is of the Essence

When it comes to driving the waste out, speed is always of the essence. Waste — whether it is waste of opportunity in the market place, waste of time, materials, capital — is always a rate: material scrapped per day, overtime expense per week, rework per application times applications per week, forgone return on capital per month on days-sales-outstanding or excess inventory or excess space. So every day that passes without an improvement implemented costs money. We may not feel it because it is built into our baseline, but it is every bit as real as if we cut a check every day for it.

When it comes to innovation processes, with a great deal of uncertainty, speed of learning is especially critical. If assumptions about what the customer needs and wants are not correct, a lot of development resources will be misdirected. Intuit, for example, has transitioned from an innovation approach that makes big changes that are months in the development to a much more rapid plan-do-study-adjust system. The more typical long project approach to innovation allows too much time to pass without actual feedback results from the market. And what's more, the final project is an amalgamation of hundreds and hundreds of untested decisions. If it fails to achieve the goals, how does one determine why and learn from that? The new approach involves designing rapid small improvements to their product or delivery system. They implement an idea on Thursday, run it through the weekend. They get and study the results data on Monday and Tuesday and are ready to design and test again by Thursday. Series of innovations are implemented and tested every week. (Ries, *Lean Startup*)

The small rapid improvement cycles allow participants to reduce risk by starting small with controlled experiments. In this context, learning is key: if the result is that the improvement did not succeed, the team attempts to learn why not and designs a new and improved solution. Permission to try something that fails, without worry about negative consequences, is essential to fostering a rapidly learning and improving culture. Often rapid improvement efforts are called Kaizen events. A rapid fire series of Kaizen-like improvements becomes rapid learning.

How Can we Create Rapid Cycles of Learning?

One Partner advised that intact teams can achieve the fastest cycles of learning and improvement. The teamwork and shared experience of an intact team can help as they design and test out their improvement ideas.

Another Partner uses a systematic pilot approach to quickly test improvement ideas with a subset of their stores. Then based on the data, they decide whether to improve and test again in the pilot set of stores or whether it is ready to roll out to all stores. This small rapid P-D-S-A cycle in pilot stores enables them to continually improve the total population in a low risk and efficient fashion. Sometimes a concept fails, but because the timing is not right — and they can revise and re-pilot when the situation changes and more enablers are in place. For example, one of the Partners had piloted on-line grocery orders. But the technology was too slow and it did not work well. Now, with a much larger group of customers with access to high speed internet, the concept is being tested again.

One Partner remembers how Bill Conway would push them out of their comfort zone. Instead of moving along at a pace that felt comfortable to them, he would set a far more aggressive schedule. Let's look at the Pareto chart, plan and do something, and return in a week to study the results and figure out what we've learned. They try to continue that 'cadence of accountability' to make sure that they are constantly and steadily learning and improving.

Another Partner described how he has gotten very good results from experimenting with and rearranging what's involved in the work content. A lot of people have a lot of fear of this. Yet it can produce terrific results. One small change with a huge and immediate impact was to implement a Kanban between two workstations. It was an overnight success! "We looked at each other and asked, 'why didn't we do this before?'" Another area with big rapid improvements is in downtime — locating the root cause. They pull people together, set rapid deadlines, and start observing and learning from the results of the changes.

How Can we Transform our Organizations into Rapidly Learning Teams?

A rapidly improving organization does not just happen naturally. It requires leadership to address three important impediments: fear of change, a slow institutional pace (the whirlwind wins; see the Partners Report on The Five Disciplines of Execution), and the processes have structural impediments to rapid experimentation. Leadership can overcome these by leading change in the following four ways:

- *Create a Balance of Accountability and Amnesty*

  Leadership must set and clearly communicate expectations about the cadence of improvements. Without this expectation, the cadence will settle into what seems most safe and comfortable for the participants — i.e., way too slow for an organization hoping to become a high-performing team. This was the impediment that Bill Conway would try to remove when he met with folks: setting rapid target dates. Instead of asking, 'When can we meet to discuss results?' Or 'When will we be ready?' he would say, "Let's discuss the results in three days."

  Amnesty is essential, so that people are not afraid to try an improvement that may not work or make a controlled change. If the environment does not allow reasonable risk taking, there will be few rewards reaped in rapid improvements. But Amnesty is not enough. Leadership must also hold people accountable for going through the P-D-S-A cycle steadily, quickly, and often, so that everyone becomes accustomed to short improvement cycles. Many of the improvements may be small, but each should yield learning, and the cumulative effect will be huge because the benefits of the small changes will begin to accrue so much sooner.

Rapid Cycles of Learning

- *Address the Structural Impediments to Experimentation and Rapid Learning*

Everyone who has implemented lean knows that the first problem you encounter when you try to reduce batch sizes is set up costs. You have to reduce the setup costs and time or it is infeasible to reduce batch sizes.

Just so, with implementing rapid cycles of improvement. For example, one Partner described difficulty implementing rapid cycles of learning when they mixed their products in large vats. A failed experiment with the mix could be very expensive. Another Partner was looking for ways to experiment with marketing messages, testing different mailings to determine which was more effective. But the marketing production process was optimized around piece part costs, and a small experimental mailing created with their standard process would be ridiculously expensive.

To arrive at a rapidly improving organization, barriers to experimentation such as these must be addressed — and they can be. Intuit invested in setting up their internal processes and technology to permit rapid cycles of improvement and data gathering. A different printing process and supplier, optimized around flexibility and rapid turnaround instead of piece part cost, can enable experimentation with marketing messages so that investments in advertising and promotion become increasingly effective. Building a small vat can enable rapid experimentation as well as smaller customer orders.

- *Go and See*

Management can make it 'the done thing' to go and see the work. By observing the work 'at the gemba,' people come to much faster and clearer ideas about what and how to improve than they could ever arrive at in a meeting in a conference room. One Partner told a story about a major customer having problems with the product. "We asked them if we could come and spend a day working in their store, observing the problems. We took people from our manufacturing floor and we learned a tremendous amount that we could apply very quickly." The customer was delighted and the people who went and observed learned a tremendous amount, and were energized to start making and testing improvements.

- *Create a Learning Structure*

Your organization will be more successful at rapid learning if you have created an effective learning structure. Clarify roles and responsibilities: Who is doing what? Who is capturing what? Who is coordinating what? Who is communicating what is being tested and learned, to whom, and how often?

How will you keep track of all the improvements made each month? How do you ensure the gains are stabilized, sustained and built upon? How will you expand the results by communicating the experiments and conclusions across branches or stores?

- *Make it Fun*

Celebrate both the gains and the failures. Celebrate because we are trying and learning together. As Thomas Edison once said, "I have not failed; I just found 10,000 ways that do not work." Keep a positive attitude. Celebrate and share every single improvement and lesson.