Creating an Adaptable Workforce: Using the Coaching Kata for Enhanced Environmental Performance

In previous issues of this journal, Conrad Soltero has written about the Improvement Kata (Soltero, 2012) and the Problem Solving Kata (Soltero, 2011) as applied to promoting improved environmental performance. In this issue, I elaborate on the Coaching Kata, which is vital to the process of embedding any kata into an organization’s culture. In order to apply either the Problem Solving or Improvement Kata to a process, the learner should be provided coaching that details each of the patterns and provides feedback as necessary.

We define a “kata” as a pattern or routine, but the Coaching Kata is the only one that changes and conforms to the particular kata that is being taught. In this article, I focus specifically on the coaching pattern for the Improvement Kata.

The Coaching Kata can help an organization realize the possibilities inherent in other katas. In the case of the Improvement Kata, it can help make improvement part of the “everyday routine” of the company.

About This Article

This article begins by discussing the steps that companies should take before coaching. These steps include defining an organizational vision, bringing the organization’s practices into alignment with that vision through policy deployment, and developing plans for implementing the vision at the departmental level. The organization must also communicate and manage the necessary change at both the organizational and the process levels.

The article then discusses some basics about kata coaching and introduces the Improvement Kata. After describing some important aspects of kata deployment, the discussion progresses through the steps of the Improvement Kata, explaining how the Coaching Kata works at each

---

Jesus Reverol
Before Coaching: Pre-Work

It is crucial to understand the pre-work that should be performed before coaching. Although organizations may implement improvements on a piecemeal basis, a conscientious attempt at continuous improvement is doomed to failure if the right steps are not taken. By doing the recommended pre-work, the organization will prepare a foundation for successful deployment.

Setting Your Vision

Defining your vision is the principal requirement for initiating Improvement Kata activities. This is the stage where the organization decides on its strategic direction. Trying to deploy continuous improvement into an organization without having a clearly defined vision is like driving your car without knowing your destination: You’ll just be wasting gas.

Hoshin Kanri: Policy Deployment

After management has established a strategic vision, the organization must bring its strategies, tactics, and practices into alignment with that vision. Hoshin Kanri (policy deployment) has been shown to be an effective tool for achieving the goal of organizational alignment.

Hoshin Kanri is “a disciplined methodology to reliably execute strategic breakthroughs. It identifies, develops, deploys, audits, and modifies a plan to focus the organization on a few specific priorities” (Bechtell, 1995, p. 17). Through the use of Hoshin Kanri, the organization delineates what the new strategy will be and defines the next steps to be taken in order to successfully adopt the “strategic direction” (i.e., the vision).

In his book Getting the Right Things Done, Pascal Dennis defines the Hoshin Management steps involved in developing a new strategy/vision for any organization (Dennis, 2006, p. ix). The steps are:

- Define the True North
- Develop the Plan
- Deploy the Plan
- Monitor the Plan
- Solve Problems
- Improve the System

It is important to emphasize that Hoshin Kanri, unlike other policy deployment methodologies (e.g., Management by Objectives), is distinctive in that it uses the “catchball” process to facilitate communication among and within departments. The catchball process requires all levels of the organization to discuss (both vertically and laterally) how they can help one another accomplish their departmental objectives. This form of communication is more beneficial since it flows in all directions.

Value Stream Mapping and Setting the Departmental Vision

Once the organization has defined its strategy/vision, each department should work on developing a plan for accomplishing their portion of it. It is at this point that value stream mapping (VSM), a process-level tool, comes into play.

Value stream mapping, a tool popularized by Toyota, is in wide use within the manufacturing and service sectors. VSM creates a visual depiction of the current state of a process. After constructing a map of the current state, the team evaluates it. Based on the results of that evaluation, the team envisions a future-state map that will become the challenge for that process.
In order to develop the current-state map, the team must gather information on the relevant process sequences and information flows. They collect data on process times and delays, along with any other pertinent information (such as materials used, hazardous waste generated, inventory, changeover times, and up-time). Once this information is placed on the map, an interdisciplinary team evaluates the current state and begins targeting improvement options for achieving the desired future state, which should be aligned with the organization’s vision.

In collecting data for the VSM, you should be sure to gather information from all levels of the organization. It is not enough to simply interview department heads and supervisors. You need to make actual observations of the entire process. Collecting real data through actual observation is key to dispelling “that’s not how it is actually done” objections from value adders.

When collecting data for a value stream map, I typically interview process managers initially. But more often than not, these managers forget or exclude important details. Moreover, during actual observation, I’m sometimes informed that the process that I’m following is atypical. When this happens, it only strengthens my argument to the organization’s leaders that their processes need to be standardized.

**Communicating and Managing Change**

Once the organizational and departmental visions have been defined, you should communicate them to everyone within the organization. Accepting change is never an easy task. People are used to doing things their way and having them be performed by specific people. Changing any ingrained practice is bound to precipitate resistance and pushback.

There are two specific tools that can be used to communicate and manage change within an organization. The first tool is based on the work of John P. Kotter and is set out in his book *Leading Change*, where he describes change management’s eight steps. Kotter’s steps help the organization develop a plan of action to explain why the organization needs to change, what the change is about, and how the change is going to be managed.

The second change tool is “Foundations for Good Job Relations,” which form part of the Training Within Industry Job Relations (TWI-JR) training. TWI-JR training was developed in the early 1940s by the US government to help supervisors involved in the war effort achieve better job relations through application of measures that prevent problems from arising. The “foundations” exhort supervisors to be proactive and treat people like individuals. If followed, the foundations (combined with a little common sense) can prevent job relations problems from manifesting.

In the following paragraphs, I discuss these change communication and management tools in more detail.

- **Kotter’s Eight Steps**

  Kotter’s eight steps for change management have been widely practiced within the management community for years. An organization that is seeking to change successfully can benefit greatly from applying this methodology.

  Kotter’s steps should be viewed as a “recipe,” since the management team must follow them in the order provided. The organization can define how they will implement each step and what alterations are necessary to fit the organization’s needs. The order in which the steps are implemented, however, is critical to the success of the
will happen at the organization in the future. TWI-JR’s Foundations for Good Job Relations (see Exhibit 1) provide an excellent complement to Kotter’s methodology when it comes to achieving positive change.

Even when organizational change is well structured and communicated, skeptics will often undermine management’s efforts. Skeptics’ behavior is understandable if their opinions and feelings have not been taken into account during the change initiative (or during previous initiatives). A good supervisor will use “preventive medicine” and perform proactive work in order to avoid conflicts that could undermine positive advances.

If managers use the Foundations for Good Job Relations preemptively, they can minimize the outbreak of problems and help ensure that people within the organization will more readily accept the changes taking place. A case in point concerns the third foundation (“Tell people in advance about changes that will affect them”). People like to be kept informed, particularly

**Exhibit 1. Job Relations**

![A SUPERVISOR GETS RESULTS THROUGH PEOPLE](image)

**Foundations for Good Relations**

- Let Each Worker Know How He/She Is Getting Along
  - Figure out what you expect of the person
  - Point out ways to improve

- Give Credit When Due
  - Look for extra or unusual performance
  - Tell the person while it’s “hot”

- Tell People in Advance About Changes That Will Affect Them
  - Tell them why if possible
  - Work with them to accept the change

- Make Best Use of Each Person’s Ability
  - Look for abilities not now being used
  - Never stand in a person’s way

**PEOPLE MUST BE TREATED AS INDIVIDUALS**

Source: TWI Institute.
when it comes to changes in their work. If you neglect this important foundation, you will most likely not get the necessary support from workers that you need to succeed in your change efforts.

Within the context of the Coaching Kata, the Foundations for Good Job Relations can be applied in three different ways: in the selection of coaches; when a kata is about to be introduced to a new learner; and when the learner is about to take a step (experiment) that could potentially affect the work of others.

When selecting who will act as a coach, several of the foundations apply (specifically, the second, third, and fourth). The coach needs to understand what the coaching is about. Individuals will also wonder why they were chosen to coach. Following the Foundations for Good Job Relations will help managers anticipate and answer these types of questions.

When introducing the use of a kata, learners need to understand clearly what they will be doing and why they will be doing it. They also need to know how it will benefit them. If these points are not made abundantly clear from the beginning, some kata learners will just go through the motions. They will fail to become more adaptable, and thus will not become as valuable as they could be to the organization.

Kata Coaching

Coaching can be seen as “a form of accelerated learning that supports and facilitates enhanced performance” (M. Bryan Consulting, 2012). Within a business setting, coaching a kata facilitates enhanced performance through the improvement of a process. In effect, the Coaching Kata is a pattern that a coach follows when he or she is teaching a learner a specific routine.

As explained by Soltero and Boutier in their book *The 7 Kata: Toyota Kata, TWI, and Lean Training*, there are at least seven recognized katas used in business, one of which is the Coaching Kata (Soltero & Boutier, 2012). The Coaching Kata is the only one of the seven that is adaptable based on the specific kata being taught. There are, however, items specific to the Coaching Kata that are commonly applied when coaching all kata. In this article, I focus my discussion on coaching the Toyota Improvement Kata.

**Coaching Is a Skill That Requires Practice**

Just like playing a musical instrument or dancing the salsa, coaching is a skill that can only be acquired through focused practice. Only through repetition and practice can a learner become proficient enough to pass along their knowledge to others as a coach.

**Kata Coaching Is Not Easy**

Kata coaching is not an easy task. It has to be done in a very detailed and well-thought-out manner. Coaching someone on how to perform a kata can be compared to raising a child. You have to be very careful about what lessons you teach children during the early stages of their lives, since these learned behaviors help define their personalities.

By the same token, when you are teaching a kata, you must make sure to coach thoroughly and correctly. Then, if your learners ever become kata coaches themselves, they will at least have the benefit of a preconceived positive role model—even if only subconsciously.

**What You Will Be Coaching: The Improvement Kata**

The Improvement Kata methodology has been well described by Mike Rother in his book *Toyota
**Defining Coaching Proficiency: The Improvement Corridor and the Knowledge Threshold**

As depicted in Exhibit 2, the improvement corridor is the bounded path that the learner must take in pursuit of the target condition, and ultimately the process vision. Along that corridor, the learner will encounter obstacles that could be a diversion from the process vision. A proficient coach knows to make subtle suggestions (disguised as questions) that keep the learner directed toward the target condition.

The knowledge threshold is the learning edge; it is where the learner’s next experiment awaits.
Using the Coaching Kata for Enhanced Environmental Performance

(Rother, 2009). A proficient coach easily recognizes this condition and will guide the learner toward experimentation as a means of resolving (removing) the obstacle.

The knowledge threshold is met every time the learner looks to the unknown. But where findings lead is a major concern for any Improvement Kata coach. Something is always learned from experimentation. The question, however, is one of relevance. A proficient coach must be able to discern the relevance of a finding and bring that understanding across to the learner. Ultimately, the goal is to teach the learner how to progress toward the target condition while avoiding diversions.

**Deploying the Improvement Kata Throughout the Organization**

Once the organization has developed its global and departmental visions, an advance team should be assembled to develop the kata deployment plan. Three to six members from top management should be trained in—and immediately begin practicing—the Improvement Kata. They should each continue practicing the Improvement Kata on their own processes until they reach a level of proficiency that will allow them to properly coach subordinates in middle management.

This cycle should repeat until all lower levels can, in turn, coach their subordinates in the use of the Improvement Kata. All supervisory and management personnel should practice a daily kata, though value adders should not be compelled to perform a daily kata.

In Mike Rother’s Toyota Kata training, he explains how a supervisor’s workday is distributed. As the pie chart in Exhibit 3 shows, the biggest slice represents daily supervisory activities. The pie chart also contains a slice for troubleshooting, which covers problem solving and other unforeseen circumstances that occur regardless of how well we prepare. In addition, the chart includes a slice of time for what Rother calls “striving” activities—of which the Improvement Kata is a crucial part. This chart reflects how the supervisor’s day would look once the Improvement Kata is embedded in the organization’s culture.

**The Challenge and Its Relation to the Vision**

Once the organization’s vision has been defined and communicated, and departmental challenges are chosen through the use of Hoshin Kanri and value stream mapping, the process owner needs to start working on setting the target conditions that will be conducive to meeting the challenge at hand. The challenge represents the vision for the process.

Since the organization’s vision is no more than a compass (a direction for the organization to chart for the next three to five years), achieving the vision is not paramount. The crucial part is to align efforts in support of the vision.

Depending on how flat the organization is, the process owner may or may not serve as the kata coach. If the process leader is not the coach, s/he will have to provide the target condition to the learner and the designated coach.

**Asking the Improvement Kata Questions**

*What Is the Target Condition?*

It is important to understand the difference between a “target” and a “target condition.” A
target is an outcome (often a numerical result obtained through work well done). A target condition, on the other hand, encompasses “the intended process steps, sequences, and timing” of the process that is targeted for improvement (Rother, 2009, p. 77). The term refers to a desired condition within the work setting, rather than a specific outcome. I have witnessed many cases in which an organization has reached its desired target (outcome) but is unable to consistently repeat the performance because it has not focused on the process variables (conditions).

In the best-case scenario, the process owner should present the target condition to the coach and the learner. If the process owner is the learner, s/he will have to define the steps, sequence, and times—in other words, the desired target condition. This target condition needs to be aligned with the challenge at hand.

In some circumstances, several target conditions or aspects of a target condition will need to be addressed before the challenge can be met. A good way of identifying these target conditions or aspects is to use a solar diagram (see Exhibit 4). In this context, a solar diagram shows the interactions between a specific process and other functions or departments.

The process owner needs to locate the process (customer) at the center of the diagram and determine all the functions or departments (suppliers) that interact with that specific process. Looking at it from this angle, the manager can begin to understand the customer/supplier dynamic. The process owner can then analyze the relationship between the department and its suppliers in order to determine whether a target condition should be set for some or all of the interactions.

The learner should not try to address multiple target conditions simultaneously. Instead, the learner should work on only one target condition at a time. Doing more than this will be too much to handle and will take time away from other duties. Moreover, as a matter of efficiency, addressing one target condition at a time is smarter. Aside from the obvious “batching” mentality, work performed on one target condition quite often resolves other perceived, unrelated target conditions.

The coach has to be very careful when scoping the target condition. If the scope is too broad, it may take too many cycles to accomplish. At the beginner stage, the learner should not set target conditions that take more than one to three weeks to achieve. Generating quicker wins will motivate the learner to persevere on through the improvement corridor. It will also help convince the learner of the kata’s efficacy.

**What Is the Current Condition?**

Defining the current condition is also extremely important in the Improvement Kata process. Knowing where you stand with respect to the target condition will help define the gap that must be bridged in order to reach the target condition.

In determining the current condition, the kata coach cannot allow the learner to be satisfied with qualitative data alone. It is very important for the learner to collect evidence about the current state of the process. Many times, people tend to make decisions based on their perception of what is happening. When they actually take the
time to go and see for themselves, they are often surprised with their findings.

Even when the learner has data available about the current condition, it is very important for the coach to determine how this data was obtained. If data was obtained from a software application, the coach must have the learner verify the data.

Having the learner collect data that can be represented in some type of flow chart (a/k/a block diagram) is an excellent approach since it requires the learner to observe closely. It is imperative for the learner to understand the process, sequence, and timing of the current state so that s/he can better identify the gap between the target and current conditions.

For transactional processes, I like to use a “swim-lane diagram” rather than a traditional flow chart. A swim-lane diagram is a particular type of flow chart that distinguishes responsibilities for the sub-processes within a larger business process. By using this tool, the learner will better understand where the process hand-offs take place.

Exhibit 5 shows an example of a conventional flow chart depicting a health care process that a colleague and I recently worked on. Exhibit 6 shows a swim-lane diagram of the same process. As you can see, the swim-lane diagram is more richly detailed, which facilitates analysis.

**What Obstacles Are Keeping You From Achieving the Target Condition?**

Removing the obstacles between the current condition and the target condition creates the means to reaching the target condition—and gets us even closer to the vision. But not all obstacles are relevant (i.e., related to the existing gap between the target and current conditions).

The key point is to keep the learner on track within the continuous improvement corridor. The kata coach must always be alert for learners who might want to indiscriminately address any obstacle.

Sometimes learners experience a mental block when thinking about possible obstacles to achieving the target condition. When coaching these learners, I usually repeat the definition of “target
condition,” emphasizing that it means “the intended process steps, sequence, and times.”

Thinking in these terms helps the learner pinpoint what s/he perceives to be the barriers to achieving that specific target condition. Simply asking, “What are the obstacles to the target condition?” may be too vague for many learners. By contrast, asking “What are the obstacles to the targeted process steps, sequence, and times?” makes for a more focused approach.

Once the learner has a clear idea of the obstacles impeding the achievement of the target condition, s/he should document them in what Mike Rother calls the “obstacles parking lot.” The idea is that the learner should list all the perceived obstacles and “store” them in a single
The coach should not suggest steps or influence the learner’s decision about what step to take next. However, if a specific step will not get the learner closer to the target condition, the coach should question it. The coach needs to make sure the learner stays within the limits of the improvement corridor.

When posing questions, the coach should avoid asking “why?” Using this term can come across as challenging or confrontational to the learner. Instead, the coach should use “what” or “how” questions. The better approach is to ask the learner, “What is the purpose of this or that?” or “How do you plan to accomplish this or that?” These kinds of questions can help the learner rethink decisions—or reinforce the decisions that have been made.

At times, the learner will find obstacles that cannot be completely removed regardless of the number of experiments or steps taken. This is a very important coaching moment since the learner’s momentum could start slackening at this point. The coach has to react quickly when situations like these arise.

Up until this point, we have been guiding the learner through the improvement corridor. But when a situation like this occurs, the coach must access his toolbox and pull out the Problem Solving Kata. Unlike the Improvement Kata, the Problem Solving Kata focuses on root-cause investigation. It aims to identify the source of the obstacle in order to remove it.

It is important to highlight that although the Problem Solving Kata and the Improvement Kata are different in nature, they complement each other. The coach should understand this relationship and be able to coach the learner through
What Did You Learn From Taking Your Last Step?

Finally, the coach should always ask, “When can we see what you learned from taking your last step?” This focuses the learner and makes him/her accountable.

The learner experiments (i.e., takes a step) in order to prove a hypothesis. After taking a step, there are only two possible outcomes: (1) confirmation of the hypothesis, meaning that the outcome of your experiment is no different from what you expected (so you do not learn anything that you did not already know) or (2) refutation of the hypothesis, meaning that the outcome of the experiment is different from what was expected. It is the latter case where new knowledge is acquired.

Regardless of the outcome, subsequent steps will be generated. If no new knowledge has been acquired, the learner can determine the next step to take based on process knowledge, perception, or even a hunch about how barriers to the target condition could be removed. If new knowledge is acquired, however, the learner needs to base his or her next step on this learning.

The coach’s job is critical here. Many times, the knowledge gained from a previous step will not be clear to the learner. When this is the case, the best approach is for the coach to use open-ended questions that help the learner clarify whether knowledge has been obtained.

Once the learning has been determined and documented, the learner should take the next step. The learner should repeat this cycle until the obstacle is removed.

Coaching Considerations

The Coaching Cycle

A coaching cycle is the time it takes the coach to help the learner navigate through the Improvement Kata questions. Since the learner is working toward accomplishing the organization’s vision by achieving departmental target conditions, the improvement work needs to be ongoing.

How the Improvement Kata Differs From a Kaizen Event

The Improvement Kata differs from kaizen events, which encompass discrete “events” that are planned and structured. Kaizen events enable a group of associates to improve a particular aspect of their business.

By contrast, the Improvement Kata is intended to embed continuous improvement into the worker’s thinking processes, making the worker more adaptable. With the Improvement Kata, the learner is expected to go through a 15-minute coaching cycle on a daily basis in order to take the necessary steps that will remove obstacles to the target condition.

The Daily Kata

There are three main reasons for performing a kata for 15 minutes every day:

- It helps create a habit of true continuous improvement. Many organizations spend so much time fighting fires that they cannot even think about allocating time specifically for improving. Organizations often fail to realize that they could eliminate or significantly reduce problematic issues if they would establish a clearly defined vision and allow employees to work daily toward accomplishing it.
• Studies have proven that regular practice is more effective than occasional practice.
• Improving is just one of the learner’s responsibilities, so it makes sense to allocate a specified amount of time for this purpose.

Conclusion

The Coaching Kata is crucial to the implementation of any other kata within an organization. Regardless of the kata being adopted, executives who want to embed true continuous improvement into the organization’s culture need to take a close look at the pre-work suggested in this article.

The best approach is to begin by clearly defining a vision, aligning practices with this vision (through Hoshin Kanri methodology), and delineating departmental challenges (with the help of value stream mapping). In addition, management needs to make sure that change is communicated and managed properly. They can accomplish this effectively by using Kotter’s eight steps at the organizational level, along with the Foundations for Good Job Relations at the process level.

Finally, the organization must develop proficient coaches. This can only be achieved by allowing both the coach and the learner to allocate time for pursuing “striving” activities on a daily basis.

Following these steps is necessary if the organization wants kata implementation to succeed. Remember that successful implementation will create more valuable and adaptable workers who can change the organization for the better.

References


Jesus Reverol is a TMAC Field Engineer with the Texas Manufacturing Assistance Center in El Paso. He can be reached at jereverol@utep.edu.

Using the Coaching Kata for Enhanced Environmental Performance  Environmental Quality Management / DOI 10.1002/tqem / Winter 2012 / 31