Kata in Healthcare

Learning and coaching for daily improvements

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Introduction

Hundreds of healthcare providers in the United States and around the world are pursuing lean concepts to improve the value of care delivered to patients — improved quality at lower cost. These efforts have moved from processes that resemble the manufacturing settings from which lean originated, such as organizing surgical supply rooms and managing pharmacy inventories, to more patient-centric activities. Along the way healthcare staff, including physicians, have begun to learn about and embrace lean behaviors, systems, and tools. Yet as healthcare providers pursue lean-driven improvements, there are struggles, even when valuable lean concepts — A3 thinking, kaizen events, huddles, etc. — are earnestly undertaken.

Many organizations have embraced problem solving through the use ***A3 thinking***: staff try to frame problems, develop deeper understanding of their problems, clarify goals and targets, identify gaps and root causes, implement countermeasures to close gaps, and then study and adjust their plans in pursuit of those goals and targets. If done well with the support of a good coach (one who practices humble inquiry in pursuit of developing the problem owner), A3 thinking is a pattern we want others to learn and practice every day. We encourage its use when beginning to work on every problem of substance, particularly when your intent is to both solve problems and develop people.

But our experience, in working with A3s and helping others do the same, confirms problems with how people use A3 problem solving. In the absence of expert coaching, A3 owners often gravitate toward capturing the background, current condition, and goals related to their problem, but struggle as they transition to developing solutions in an iterative, scientific manner. Even when they identify potential root causes, it is not uncommon to create a long list of actions that they *hope* will achieve the target condition — with little to no experimentation, vague hypotheses, often no reflection, and frequently no adjustment. At best it's the PD part of PDSA (plan/do/study/adjust) without the S and A.

We also tend to make a good plan, begin to implement it, and then stop: The initial countermeasures don't work as intended, but we've already moved on to the next problem. The intended PDSA cycle turned into a "plan" and "done." The true causes to the problem don't get addressed because of our incomplete thinking and practice, and the problem remains unsolved. Those still involved in the attempted improvement or subjected to the problem are left frustrated and overwhelmed, looking for adjustments that usually never come.

Kaizen events are a specific practice of spending hours to days focused on a particular problem, with the intention of working through A3 thinking as a team and experimenting with countermeasures. Kaizen events can bring about change and bring together cross-functional teams (which otherwise would never meet) to problem solve. We have each been involved in dozens of these events over the years, many of which ended with great countermeasures to existing problems. If done well, the thinking pattern a kaizen team goes through is one of PDSA: collectively understanding the problem and its relation to goals and targets, determining potential

causes, and rapid experimentation to find effective solutions. However, we and others in healthcare have come to appreciate some concerns with this approach.

First, many times the "experimenting" is simulated or represents how the process works for one to two days while a whole team hovers around. Some significant obstacles to the process don't surface until after the team has disbanded, and the people actually working in the process are left to figure things out.

Second, kaizen or rapid improvement events can create a dependency on using the event format to improve. There's a problem? Wait for the next kaizen event. Without a robust improvement routine occurring *daily* following and in addition to one of these events, the area involved will have little chance to make the process work over time or to develop new habits.

Third, spending a dedicated week focusing on a problem is time-consuming, both to plan and for clinicians involved. A physician's typical pattern is to go through A3 thinking with their patients multiple times a day, with rapid cycles of experimentation. They often see spending that much time offline in a simulated problem-solving environment as wasteful. Frankly, for many situations, we agree with them.

Team huddles help to quickly focus staff on a daily basis. Huddles can create an environment to make problems visual, engage team members in the problem-solving process, and routinely align staff thinking toward achieving a level of performance that is strategically vital to the organization. If not done carefully, however, we have seen huddles that focus on inconsequential problems or encourage teams to jump to solutions — instead of stepping back, learning more about the problem, and practicing scientific thinking.

These practices are important to a lean transformation, but they can wander from organizational objectives. Developing and sustaining a *culture* of daily improvement and coaching toward significant business challenges is our goal. However, the ability to achieve meaningful macro results is impaired by the lack of a routine at the micro level: leadership develops strategic plans and places them in the hands of management; management forms frontline teams and events to tackle problems related to the plan; and busy frontline staff attempt to perform their day-to-day roles and address the problems they have been assigned. Structurally it appears sound: each group is truly pursuing results and using lean tools and techniques. The reality is that they all individually work on cloistered and often disconnected problems in their own unique ways, often more focused on tools and solutions than behaviors and scientific thinking.

A way exists to bring scientific thinking and practice to bear on all problems daily, to teach PDSA thinking as part of a leadership routine, to bring more meaning to huddles, and to make the study and adjust components of A3 thinking robust. This way is not about making dramatic changes to your improvement system, rather it is an accessible method that changes behaviors and can bring dramatic improvement. We and others have learned — and continue to learn — about how to improve our improvement through the practice of Kata.

Developing Improvement Thinking and Skill with Kata

A Kata is a structured pattern or routine that beginners follow during their early practice, on their path to proficiency and expertise with a craft, sport, or any work or life endeavor. For example in martial arts, the constantly recombined movements and sequences of combatants are based on their earlier practice of Kata. The fundamental manner in which a watercolor artist routinely prepares paints and paper is built on the practice of Kata. Software programmers have practiced a form of Kata ritual to improve the speed and creativity of their coding capabilities, which they then apply in their own style.

Some organizations, such as Toyota, have embraced and practice Kata around improvement and coaching, but you probably won't find any mention of "Toyota" with "Kata" prior to Mike Rother's seminal work, *Toyota Kata*.[1] For Toyota, it is a routine of behaviors and based on principles of a scientific approach for dealing with goals and problems. The benefits of Kata are not in the name — you should call it whatever you'd like — nor should you practice Kata just because Rother first observed it at Toyota. The merits of the Improvement Kata and Coaching Kata are their ability to foster intuitive scientific thinking in virtually anyone, anywhere.

The practice of Improvement Kata and Coaching Kata has spread in healthcare, but not as rapidly as it could and should, especially since it is ideal for a hospital environment where many specialties and roles are trying to address a multitude of large organizational challenges. Kata can help healthcare providers because it:

- *Mirrors clinical training formats with which physicians and healthcare staff are already familiar:* The manner in which physicians and other healthcare professionals assess and diagnose patients as a prescribed set of standardized activities is a pattern that mirrors the Improvement Kata pattern described by Rother. In addition, continuous-improvement staff need a mechanism to capture clinician inputs on key problems and enlist their help in achieving objectives without it being onerous. For example, rather than having physicians attend a three-day kaizen event, the Kata daily coaching cycles of 5-15 minutes can more easily engage physicians about a current and target condition, obstacles that prevent that target from being reached, and ways to run trials and experiment to develop solutions. The Kata pattern aligns with the rapid, yet thoughtful manner in which most physicians typically think and practice.

- *Offers a structured means to practice and embed scientific thinking routines that are essentially the same regardless of healthcare role, function, personality, or expertise:* A CEO, maintenance engineer, nurse, or lab technician can learn, coach, and practice the same Improvement Kata routine. It's a universal "meta skill."

[1] Mike Rother, *Toyota Kata*. (New York: McGraw-Hill Education, 2009).

- *Perfectly complements A3 thinking and helps individuals and teams to efficiently bridge the PDSA gap from planning to experimentation and implementation:* Kata deliberately tackles daily improvement roles in a consistent manner and spurs rapid experimentation toward solutions that link directly to strategic objectives. It establishes a problem-solving pattern to where it becomes a deeply ingrained habit — and leaves creative time and energy to build new abilities. The practice of Kata is a way of transmitting skills to others, thus developing shared abilities and mindsets in a team or organization — i.e., shared behaviors that form a common, deliberate culture.

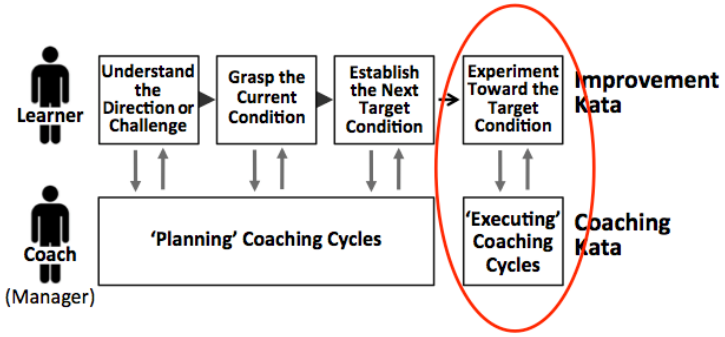
- *Embeds daily coaching within the improvement process:* New clinicians begin practice under the careful guidance of an attending or clinical instructor. The instructor or "coach" listens and observes how the novice performs the basic evaluation, reassessment, and treatment routines; asks open-ended questions to prompt thinking; and provides correction as needed. This is the same pattern that novice musicians and athletes experience with their teachers and coaches. An improvement coach similarly provides consistent developmental support by asking key questions, listening, and providing situational guidance so that the learner practices and learns the right pattern.

Kata doesn't replace your current improvement approach. Practicing the Improvement Kata and Coaching Kata (IK/CK) develops fundamental scientific thinking skills that make you better at whatever improvement approach you use. Executives that contributed thoughts and experiences for this report use the phrase, "Kata plays well with others." Amy Mervak, MPH, is Chief Quality and Compliance Officer at Hospice Care of Southwest Michigan, an independent nonprofit hospice that also provides adult day services for older adults and palliative care services. Mervak develops the overall direction for the organization's quality improvement and compliance program, in addition to designing and teaching the strategy, approach, and system for organizational quality and process improvement. "Because the Kata describes scientific patterns of thinking, practicing them can bolster an organization's current lean practices and management system," she says. "You can apply the Kata to different levels of the organization. You can apply them at the strategic planning level. You can apply them at the value-stream level. You can apply them at the process level."

If an organization has advanced along a lean journey, practicing IK/CK will help. If an organization has focused operational excellence around some other method of improvement, practicing IK/CK will help. If an organization is a blank slate and in need of something — anything — to simply stabilize its processes, practicing IK/CK will help. With continuous improvement in healthcare, everyone has felt like a beginner at one point, and many still feel that way. Kata helps improvement beginners and veterans alike, linking scientific thinking and practice, gathering information for rapid-cycle experimentation, and establishing learner-coach relationships that are critical to success and improvement.

Kata Roles

Improvement Kata and Coaching Kata



Source: Mike Rother

There is no single best way to apply Kata in an organization. Kata has been referred to as an "open source" management tool, in that Rother openly shares Kata tools, videos, presentations, and knowledge, encouraging individuals to use, experiment with, and advance the learning as a community. However, the initial use of Kata will consist of standardized Improvement Kata and Coaching Kata patterns, and should include three roles that work together: learner, coach, and second coach.

The Learner Role

Like a golfer repeating a precise putting stroke hundreds of times, the learner is trying to internalize effective patterns of improvement experimentation. The learner will repeat the new thinking patterns without modification at first, guided by a coach and following a storyboard that reminds them of the process they are to follow. This fundamental four-step thinking pattern by a learner when striving for daily improvements should not waver:

1. *Understand the direction or challenge:* Most if not all problem-solving routines, such as PDSA and A3 thinking, all begin with an understanding of the background. The Kata routine is no different. Why is the organization working on this *now*? How does this support and align with the organization's vision and purpose?

   A learner needs to know what success looks like for their organization, to figure out how to get started and if the problem or project is relevant. The learner is confirming they have a problem to solve that is meaningful to the entire organization and can help to address an organizational challenge.

2. *Grasp the current condition:* Next, a learner should understand the current condition of their focus process, such as standards in place, consistency of actions, variability in work, measurements that are tracked, and pace of work vs. desired takt time. The learner observes the work in its current condition, and can describe the patterns of work and how work is distributed. Without knowing the existing condition, a learner cannot identify the gap that will emerge when a target condition is established.

   By studying the current condition and knowing the challenge, the learner begins to see what must be learned or what may need to be done differently in the future. For this

reason, defining the current condition must extend beyond merely outcome metrics, to also consider and relay qualitative process characteristics. Tools such as flow mapping, time observations, run charts, and spaghetti diagrams can help.

3. *Establish the next target condition:* The target condition is a smaller goal on the way to the larger challenge. The learner, in a back-and-forth collaboration with their coach, defines the next target condition, including a date for achieving it. Each target condition will tee up experiments that, if successful, improve a process and help to meet the broader organization challenge. Of course, it usually takes achieving many small target conditions to get there. There may be a large chasm from the target condition to the organizational challenge, but there must be a connection — hitting the target condition moves the organization closer to the reaching the challenge.

   The target condition also should be a substantial step forward from the current condition, but not one so great to be unattainable or too intensive for the period given. The target condition always has an achieve-by date, and it's usually fairly near-term — not months but weeks away — which creates momentum and helps to sustain movement.

   The target condition is looking into the future and putting a stake in the ground. It defines where we want to be next. What conditions does the learner want to bring into existence? It is not a solution, but a description of the place you want to be. The target condition also is developed initially by the learner (and team if appropriate), but ultimately determined through dialogue between the learner and coach.

4. *Experiment toward the target condition:* This step is a repetitive microcosm of a PDSA cycle, frequently involving many experiments. The first part is to identify obstacles that prevent the target condition from being achieved, and then conduct successive experiments to remove one obstacle at a time. Some experiments may be sequential, with a learner advancing as incremental knowledge is gathered, improvements occur, and the Kata routine gets the focus process closer to the target condition. Experiments also may emerge that are unique stand-alone ideas based on lessons learned and new information uncovered, with the learner seeking an alternative path to improvement. As when understanding the current condition, it's important that obstacles are defined by observing the work and data. This step in the Kata cycle resembles gap analysis within A3 thinking.

   During this step, we have heard learners say, "Here's something we're going to experiment with to help remove the obstacle. We have a hypothesis of what we think is going to happen. We're going to try it. We're going to study what actually happened. We're going to look at our process metrics and see how they changed. We're going to talk to the team about what actually happened when they did that, and then adjust based on what we learn. We're going to document the lessons learned from doing this, and we're going to identify what the next steps moving forward are."

Each learner-coach coaching cycle generally takes less than 20 minutes and typically is done daily. It's a pause for reflection and course correction, and the learner's actions then occur outside of the coaching cycle. The learner builds proficiency by working through this thinking pattern, discussing the steps, and describing the work on an actual problem with their coach (typically a one-to-one relationship).

With practice, a learner eventually gets comfortable and confident with this thinking and experimenting routine. It no longer feels forced. As a learner gains proficiency with the thinking patterns, she will develop an ability to apply the routine to new challenges, and with a better understanding of the "why" behind the patterns can develop her own style, within limits. The thinking patterns become subconscious habit and normal behavior for a learner. Like a golfer not thinking about a putting stroke while making a putt, a learner comes to focus on the problem — rather than the process of how she can solve the problem — and applies the pattern they have practiced to all daily improvement activities going forward. Ultimately, it's not the Kata that is important, but the skills and thinking that practicing it leaves behind.

Skip Steward, Chief Improvement Officer at Baptist Memorial Health Care, says those wanting to benefit from Kata should begin as a learner. Baptist Memorial, headquartered in Memphis, Tenn., is one of the largest nonprofit healthcare systems in the United States, and in spring 2017 will consist of 22 hospitals and approximately 160 clinics. Steward's role is to work with the Baptist Management System (synonymous with a lean management system or the "Toyota Production System"), helping staff to implement changes in a range of disciplines (quality, cost, finance, clinical, non-clinical).

"We ask folks to humble themselves, start off as a learner, and put your title to the side," Steward says. "We've had many high-powered chief financial officers, CEOs of small hospitals, and a lot of directors that might have 500 people reporting to them, start off as a learner. They stay at that learner's role for about eight to 10 weeks, every day, Monday through Friday." At Baptist Memorial, learners graduate to coaches, practicing that role for eight to 10 weeks, after which they graduate to a second coach, which Steward says would be the natural role for most executives because of their positions in the organization.

How long it takes for a learner to be ready to coach others can depend upon the person and the situation. Some colleagues and peers suggest as little as 20 cycles as a learner is enough, while others say more practice or the quality of practice determines proficiency. We think that to get the full effect of Kata and really understand why it works, it will help a learner to repeat the cycle and meet one or two organizational challenges. This amount of practice demonstrates the ability and knowledge of the process in order to coach well. Baptist Memorial likes to have learners hit four to five target conditions before they are rotated into a coach role, says Steward.

Many executives have told Steward they are grateful to begin as learners because it tempered their desire to tell people what to do when they coach. "A large majority of us have grown up and been conditioned to always instruct and tell people what to do," he says. "But a coach is not

someone that gives instructions, but someone that brings awareness. It would be arrogant and naïve to think that someone could be a coach or a second coach just because of their title. Unfortunately, we live in a time where the word ‘coach’ has become very generic, just like the word ‘friend’ has become generic on Facebook.”

The Coach Role

The first objective for a Kata coach is to understand the baseline of a learner’s thinking and the gap from ideal thinking: Are they familiar with the scientific approach? Are they acquainted with Kata? Have they practiced Kata? Have they been a Kata coach or second coach? Do they instinctively and subconsciously approach problems using the Kata steps?

It is the Kata coach who will first present the framework of beginning questions (“coaching questions”) that foster a learner’s experimentation. Anyone involved with Kata — learner, coach, second coach — will learn to appreciate the power of these questions:

1. What is the target condition?
2. What is the actual condition now?
3. If an experiment has been performed previously, the coach asks: What was your last step? What did you expect? What actually happened? What did you learn from taking that step?
4. What obstacles are preventing you from achieving the target condition, and which one are you working on next?
5. What is your next step (the experiment) to overcome the obstacle or obstacles, and what do you expect to happen by taking that step? What is your hypothesis?
6. When can we go and see what we have learned from taking that step?

The coach matter-of-factly asks these questions for two main reasons:

- To reinforce the scientific pattern of the Improvement Kata as the learner works on improving a real process.
- To help the coach see how the learner is currently thinking, so the coach can formulate situational practice feedback that is appropriate to each learner.

The learner steps of Kata seem so simple and straightforward, but it’s easy to go astray, especially with learners just beginning to practice the routine. For this reason the coaching questions are like a mantra, even if they come across as forced — eventually they will be expected. The coach is there to guide the learner down the Kata path and to help them avoid unproductive thinking:

- *Preconceived solutions:* Learners tend to jump to solutions, subconsciously knowing what they want to do and presenting obstacles that artificially align with their preconceived solution. They should also be seeking a condition and not a solution. It is the coach’s role to make them cognizant of their intentions.

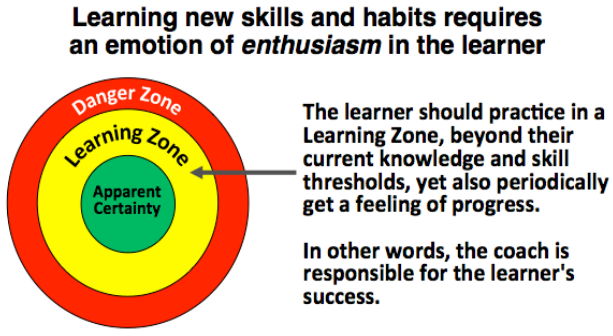
- *No plan is 100% correct:* When teams tackle large organizational challenges, there is typically a plan that all can point to, identifying all the actions along the way to overcome the challenge. Everyone wants a plan, but with Kata the plan is to remove obstacles in pursuit of a target condition. Although a target condition is aligned to a challenge, you never know where removing obstacles will lead. Some learners have trouble functioning without a plan.

- *Look too far ahead:* Learners will try to take on more than the storyboard and coach's words will allow them, trying experiments that might impact the larger challenge instead of critically thinking their way to a hypothesis for removal of an obstacle that prevents the target condition. There rarely is a magic bullet that's going to address an organizational challenge in one fell swoop.

Developing a new thinking pattern does not come easy, says Michael Lombard, CEO of Cornerstone Hospital of Southwest Louisiana, a 30-bed acute care hospital. Lombard has coached Kata throughout the Cornerstone Healthcare Group, which operates 18 facilities (long-term acute care hospitals). He compares it to writing your name five times with your chosen hand, and then being forced to write it five times again but with the other hand (he also uses this as an exercise to illustrate the concept of new thinking patterns). "It really is that awkward at first. Beginner Kata practitioners have told me it feels mechanical. 'It's robotic.' People can be a little bit thrown off by that sensation at first. But I always tell them, 'Hey, this is intentional. We're going to get you through this awkward period. Just give me 20 or so coaching cycles and it will start feeling a little more normal.' Having coached 50-plus leaders in over a dozen hospitals, I can say this initial period of discomfort is almost universal, so we should not shy away from it and just embrace it."

It's also natural for a learner to feel dejected when a target condition is unmet or to feel overly satisfied when an experiment achieves the desired outcome — "my work is done." The coach is instrumental at avoiding either trap. The coach collaborates with the learner to establish target conditions that the learner can strive to achieve within a "Learning Zone," pushing learners beyond current understanding and skills while allowing for some degree of progress and some sense of success.

Learning Zone



Source: Mike Rother

A coach should resist the temptation to direct, and instead let the learner initially propose what they believe to be an appropriate target condition — ideally not too much, but not too little. The coach wants the learner to be in a "zone of uncertainty," as Rother calls it, a place where reaching the target condition may cause modest disbelief but still present a willingness to experiment

toward that objective. If a target condition is set that is obviously weak, unattainable, or directionally inaccurate (not connected to the challenge), it's an opportunity for catchball and the coach to encourage reflection — after all, there is still an organizational challenge that needs to be achieved and limited time and resources. This is more likely to take place when a learner is starting Kata and unaccustomed to experimentation. Kata accommodates an imperfect world, and both coaches and learners will feel their way to reasonable target conditions that can be achieved in two to four weeks.

As a learner progresses, the coach creates conditions for them to apply and practice the newly learned patterns and experimentation routines on real problems. Remember, while Kata involves learning to solve problems through a pattern of improvement and coaching (IK/CK), it is done by working on real problems. As such, coaching relationships usually follow the reporting framework in an organization: A director of nursing coaching a nurse manager, a nurse manager coaching a nurse, etc.

Lombard has participated in more than 1,000 coaching cycles as a coach at Cornerstone Healthcare Group and other health systems. Even with that level of experience, he says it is still important to practice as a learner as well as a coach. "They are two sides of the same coin, the Improvement Kata/Coaching Kata, and they come together at the coaching cycle. You need a little bit of Improvement Kata proficiency to be able to do the Coaching Kata well, yet I would say that you should start practicing both sooner rather than later, and you should never stop practicing both… It's a virtuous cycle. They more you teach it, the better you understand it, and so doing both on an ongoing basis is helpful."

He has experimented with colleagues practicing all three Kata roles during a single session using a round-robin format: Starting with person A as learner, person B as coach, and person C as second coach, they each then move into a different role after a coaching cycle, and each has a different process that they are working to improve. "That's a good way for everybody to kind of loosen up and say, 'I really don't understand what I'm doing, but it's OK because the next person is going to be equally as awkward when they do it.'"

Ideally the learner-coach relationship is one-to-one, but some organizations have experimented with alternative structures, especially at the start when Kata coaches are in short supply. For example, Mervak coaches an eight-person "learner team" of clinical leaders. "This approach has its strengths and weaknesses. I think it is a good way for people to learn the Kata and for individuals to get some practice in." During weekly meetings, she acts as the coach while the team practices the Improvement Kata. The team will develop the challenge and work to understand the current condition in relation to the challenge. Individual team members may be assigned steps to better understand the current condition. This learning is shared at the weekly meeting. The team works together to set a target condition. As they experiment and use a "PDSA Cycles Record" to record the experiments, individuals will develop and carry out "Next Steps." At subsequent meetings, those individuals will assume the role of learner and complete a formal coaching cycle with Mervak in the role of coach.

The Second Coach Role

The third role in a coaching cycle is that of a second coach — a coach to the coach. This person observes and gives feedback to the coach. How did the coach focus the learner on the storyboard during the coaching Kata? How did the coach offer effective questions and redirection? How is the target condition aligned with the overall performance challenge for the unit and organization? What kind of feedback is the coach giving to the learner? How often are coaching cycles happening and what obstacles prevent them from happening daily?

The second coach is usually not present in every coaching cycle. The role, however, is critical to the baseline objective of using Kata: create a common thinking pattern and culture. Just as a professional baseball organization aligns its dozens of managers and coaches at all levels of its minor leagues to the routines and practice habits desired by the major league club, second coaches manage and tune the Kata learner-coach relationship up and down the organization.

Many healthcare organizations may begin Kata by attending a conference or class, watching a video, or by reading this report. It's easy but erroneous to see Coaching Kata as simply asking the storyboard questions and the learner providing the "right" answers. It's never that simple. We've seen coaches who are too directive, not sufficiently engaged, or even lose sight of the bigger picture (achieving the challenge and organizational improvement). Typically, the second coach should be silent and patient during the learner-coach cycle and communicate with the coach after the learner-coach cycle. A post-cycle critique is done by asking effective, reflective questions, but if events warrant, the second coach may more directly intervene.

Developing the three Kata roles can feel overwhelming as organizations get excited about Kata and roll it out. Kata is about skill development. A healthcare system may want proficient coaches at all levels, who have the ability to routinely coach all of their reports in a scientific approach. Yet that is an organization challenge. What target condition gets the organization moving closer to that ideal situation and gets more people practicing Kata near-term? The obstacles and experiments to remove those obstacles are limitless.

Steward shares Kata throughout the expansive Baptist Memorial Health network of facilities, working with senior management at a location to carefully identify where to start Kata, and then conducting a four-day workshop with key individuals in that area or function. For example, a workshop at a hospital might include 18 individuals, with six people learning and rotating through each of the three Kata roles, with a storyboard for each three-person group. With guidance from an external master second coach, the workshop provides knowledge via simulations — it's not yet developing Kata skills. "They get awareness at a very deep level, and then, basically, a week or two after that workshop, we bring in an external consultant/master coach to work with them and to develop those habits every single day. We are attempting to set everything up so that we go straight from classroom to the real world, and we start learning how to practice new habits and routines in the real world, driving toward a challenge that came from senior management."

Coaching Cycle Example — The Basic Pattern

The following Kata cycle took place in an organization where the corporate challenge was to improve Perioperative margin. The strategy deployed to an operating room (OR) team established a target to reduce OR turnover time in order to improve OR efficiency and, ideally, allow for more capacity to complete more cases. The learner was the OR supervisor, responsible for the operational performance of the team. She was given an annual challenge to reduce turnover time to national standards, make sure all best-practice standards for room cleaning are being followed, and establish a consistent number of team members for each room turnover. The target condition in this example is one of many that were used to move toward the challenge.

Coach: What is the target condition?
Learner: The target condition is to implement all components of best practice for cleaning one room, 100% of the time, with no expected increase in turnover time or intent to improve on creating consistency with the number of people involved in the room turnover.

Coach: What is the actual condition now?
Learner: We are turning the room over following best practice standards, but our progress is variable, hard to measure, and occurring only 50-70% of the time. Turnover time is stable at the baseline times, but the number of team members is variable, with one to eight people helping to turn a room.

Coach: What obstacles are preventing you from achieving the target condition, and which one are you working on next?
Learner: There are numerous obstacles: Not all team members are knowledgeable about the standards we are trying to follow, different types of cases require different cleaning effort, and it is hard to tell what is cleaned and what is not cleaned when more than four people show up and help to turn the room.

Coach: What was your last step? What did you expect? What actually happened? What did you learn from taking that step?
Learner: Our last step was to run one full day with team members who are trained on all best-practice standards. We expected that if the standard could be followed, times would decrease, and the optimum number of people involved might become apparent. What happened was the times increased by about 1 minute per turn, the standard was not always followed, and people who were not trained on the standard showed up and tried to help. We learned that we need to control the amount of team members who are involved in each turnover — when we only have team members who are trained in the new standard present, the best-practice standards can be accomplished consistently.

Coach: What obstacles are preventing you from achieving the target condition, and which one are you working on next?
Learner: We didn't reduce any obstacles; however, we did find a new obstacle related to team members showing up trying to help without knowledge of the standard.

Coach: What is your next step (the experiment) to overcome the obstacle or obstacles, and what do you expect to happen by taking that step? What is your hypotheses?
Learner: Our next step is to designate parts of the best-practice cleaning standard to different "roles," which will allow us to assign and control the number of people variable. We'll use a two-person team as an experiment to control. We expect that the standard will be followed and the room cleaned as required, but we'll need to add time to the room turnover.

Coach: When can we go and see what we have learned from taking that step?
Learner: We can go and see at the end of the day tomorrow, after we trial for the day.

Kata Connects Strategy with Bedside Improvements

With so many improvement opportunities in healthcare, how does leadership keep hundreds if not thousands of employees and physicians focused on the most meaningful objectives and challenges? Even when strategy deployment/hoshin kanri is done well, it can be just an enormous cascade of plans and objectives down through the rank and file whereby, as in the party game of *telephone*, the likelihood of miscommunication and misalignment is high.

Kata cuts a straight line from strategies to everyone and everything: Regardless of the organizational level — senior leadership, management, supervisors, bedside staff — every coaching cycle begins with a review of the challenge, and every target condition defined and pursued should connect to the challenge. In how many healthcare organizations today can employees articulate leadership's vision and strategy, let alone develop improvements toward it?

Kata aligns the right work, enables leaders to problem solve and coach, establishes an improvement and coaching routine for the organization to execute on strategy, and creates an up-and-down flow of information in the organization. Kata helps answer the question, "What are we doing on this unit today in pursuit of achieving our system vision and strategy?" Kata is a framework that takes strategic initiatives and disseminates them, empowering individuals to view their current condition in light of the organizational challenges and to establish target conditions that move them closer to overcoming the challenge. Simultaneously, it establishes an upward flow of lessons-learned, so that reality-based course corrections can be made, even at the top.

Strategy deployment provides a direction for *what* areas the organization should focus on, and Kata provides the leadership patterns for *how* to manage those deployed strategies, work toward target performance, and learn. At HonorHealth in Arizona, Kata was established with senior leadership with a clear intent to build each Kata cycle and target condition upon challenges that were tightly linked to the provider's strategic objectives and vision (see *Kata at HonorHealth*).

When Kata learners have clear target conditions (level of performance and future condition they wish to achieve by a specific point in time), it also creates clarity of direction and expectations for leadership. They understand if, when, and where progress is being made. With that, senior executives can support improvements as necessary and establish accountability via established lean management practices, such as follow-up monitoring and tracking sheets, observations at the gemba, and providing direction/focus for huddles.

Kata also can be used to *create strategy*. Mervak says that Hospice Care of Southwest Michigan uses Kata to set organizational challenges (one- to three-year priorities), and holds a weekly leadership meeting focused on one or more challenges. "We set the challenge, understand the current condition, and then we practice setting target conditions and experimenting toward those target conditions. We have seen success with this approach."

Kata at HonorHealth

HonorHealth, a healthcare system serving the greater Phoenix area, has been pursuing lean improvements for eight years, initially independently as John C. Lincoln Health Network and Scottsdale Healthcare, and in 2014, when the two providers merged as HonorHealth. HonorHealth includes more than 3,400 physicians, 11,600 employees, and more than 3,000 volunteers.

HonorHealth began applying Kata routines into its operations three years ago, says Kim Hunsinger, Associate Vice President for Continuous Improvement. Hunsinger leads an 11-person lean continuous improvement department, overseeing efforts including improvement projects, value-stream initiatives, strategy deployment, and daily management systems. Hunsinger initially learned about Kata by reading *Toyota Kata*,[2] and recalls, "This makes so much more sense than some of the other things that we were doing, and it really seemed applicable." Her initial efforts to roll out Kata within HonorHealth involved distributing cards with the Kata questions on them and encouraging management to use the conversations when they talked with staff. "It was difficult for most people to understand the intent of the questions and so it really didn't go anywhere."

She said HonorHealth, which is a member of the Catalysis Healthcare Value Network, eventually dedicated resources and education to its practice of Kata. At John C. Lincoln Medical Center, she brought together a group of 10 leaders — including the CEO, CNO (chief nursing officer), and vice president of operations — and worked to develop them as both learners and coaches. "The executive team at that hospital saw the value in it, had also done some studying of Kata, and wanted to bring it to their facility."

As a group, this initial "cohort" picked a challenge that was tied to HonorHealth's strategic plan and vision, and each of the 10 leaders then selected a specific process challenge that was tied to the overall challenge. (The first overall challenge was to decrease the length of stay of observation patients.) Three additional cohorts of learners have been trained at HonorHealth (approximately 50 total learners), reaching down to the supervisor charge nurse level in terms of learners. Many frontline staff, however, have been exposed to Kata because of projects occurring in their departments. The subsequent three cohorts similarly have targeted challenges associated with the HonorHealth strategic plan, which focuses on four pillars: patient experience, quality safety, people, and financial stewardship.

"With the new people that we were bringing on as learners, we wanted to make sure that the goals were tied to things that were their responsibilities," says Hunsinger. But even with that deliberate, designed intent to link Kata challenges with strategy, it still took a few cohorts to modify the program and tighten that connection. In addition, cohort training was tweaked to define challenges that were more clearly associated with a learner's role and the type of work they typically perform (otherwise the practice of Kata felt like "extra work"). In doing this, the selection of the challenges has helped to define the organizational structure for application of Kata routines, joining natural reporting relationships as learner and coach. "Having a learner and coach in a supervisory relationship works much better than when you have a random person who has the coaching skills and is trying to bring a learner up… By the third cohort we saw the benefits of that."

[2] Mike Rother, *Toyota Kata*. (New York: McGraw-Hill Education, 2009).

The three-day Kata training program for cohorts includes a one-day Kata experience, where new learners are presented the concept of Kata, see how Kata is used, and begin to practice Kata in a simulated environment with Dominoes. Learners then go through a two-day Kata learning session, during which they work through each of the Kata steps and then begin work on their own challenges, and target conditions. Hunsinger says it has been difficult for others that are not using Kata to fully understand it, until they learn and practice. In addition, early on it was challenging to develop a Kata training program, learn Kata, and apply it throughout the organization.

"Each time we would bring on a new group, we were really looking at how do we make this learning effective and this training efficient so it's not such a time-consuming process but something that is happening as a regular part of their job," she says. Early reactions to the training program were that it was very time-consuming. "[But] once they learned it and they saw it working, I think it was looked at as, 'Wow, this is the way we need to be doing everything. It's the right thing to do, we're seeing results, and [the practice of Kata] is really not time-consuming."

Hunsinger says they try to conduct the learner-coach Kata cycles at least three times a week. "It may look like it takes a lot of time because you have to do it [frequently]. But a coaching cycle only takes 20-30 minutes, which allows you to problem solve much quicker by doing it this way."

Learners are evaluated monthly with a skills assessment and graded as novice, advanced beginner, competent, proficient, or expert. After advancing as a learner, some people move on to become coaches. Coach skills are similarly assessed. Of the learners that have been practicing Kata at HonorHealth, 15 also progressed to become coaches. Most coaches have continued to perform learner roles and work on specific challenges, but as they've tried to expand Kata in the hospital, the original cohort learners have focused primarily on coaching roles because of the time commitment that requires. One coach may be working with up to six learners, and second coaches are being utilized only for new coaches due to time constraints. Kata has been slow to expand to the other HonorHealth hospitals because of obstacles with the distance between locations, the frequency of Kata cycles, and the still small number of coaches.

The initial cohort serves as HonorHealth's Advanced Group and manages the program — Kata the Kata. "We meet a couple times a week, looking at the development of Kata and the development of our learners and our coaches," says Hunsinger. The skills assessment of learners and coaches has helped the Advanced Group monitor the pace of Kata in the organization and identify needed improvements on some of its owns obstacles, such as the number of new learners to bring on annually. "We are constantly going through the Kata process for that, looking at those competencies and identifying what are the obstacles, and what are the steps that we're taking to improve the skills of the learners and coaches. The skills assessment process has worked well, and it's been a way for us to see progression."

Results at the HonorHealth hospital specifically related to the Kata have been improvements to the patient experience (as identified on a patient experience survey and for specific questions related to a nursing unit); improvements to hand hygiene and impact on lowering the hospital's clostridium difficule rate; improvements to specific steps of the observation process, such as discharge times and turnaround procedures; and some employee-engagement improvements.

Lombard believes that healthcare leadership has embraced Kata because it offers visibility that strategic objectives are being pursued, starting at the top of the organization, and working down through it. Leaders, once they start to see results being delivered via Kata, typically begin to see it as a pragmatic way to get the right things done, but one that doesn't require an enormous time commitment of whole days or weeks by them or others in the organization.

Kata eventually creates a chain of coaching that also aligns from top to bottom, adds Lombard, and the Improvement Kata forces people to think about the big-picture strategy before jumping in and committing resources. He says there is "a built-in continuum of Kata practice as you go from the executive level to the frontline level. Kata is fractal in nature, meaning the smaller pattern is equal to and exactly the same as the larger pattern. It's just on a different scale."

When there's a coaching chain up and down the organization and when leaders have the opportunity to coach across a wide range of learners on a wide range of improvement endeavors, they are able to judge the scale properly, and coach at the right scale commensurate to the learner position in the organization — neither micro-managing nor macro-managing. "That was an unanticipated, positive benefit of Kata practice," says Lombard.

The Kata connection to strategy also helps the individual charged with leading and coaching Kata to regularly review target conditions and to determine how best to support achieving goals and developing scientific thinking skills — how to *Kata the Kata*: Where do we need to go see? Where do we need to coach? How are the targets progressing? Who needs more help or resources? Rather than a sporadic "update meeting" to find out what if anything is being done, the practice of Kata makes the challenge and activities visible every day without being forced.

Kata Results

Improvement Kata and Coaching Kata exists alongside improvement systems underway at a healthcare organization, not instead of them. It helps organizations get more traction from all their current efforts. That begins by aligning all improvement work around key objectives and challenges and a provider's True North. It also gets embedded within A3 thinking and helps individuals move to study and adjust on "the right side" of their A3s — experimentation with countermeasures, follow up on plans, analyzing results, and changing direction, if necessary.

Some activities, however, may proceed a bit differently when Kata is incorporated. For example, rapid-improvement events/kaizen may still last for three to five days, but more progress occurs during the event as a kaizen team moves toward a target condition rather than planning for changes to take place outside of the event. Hospice Care of Southwest Michigan has experimented with integrating Kata into its rapid improvement events. For example, a specific target condition developed by a team working on a challenge needed broader participation from staff. This target condition was passed to an 18-person event team as a challenge to pursue. "They worked to understand the current condition in relationship to that challenge, and then,

within the rapid improvement event, practiced the Improvement and Coaching Kata. This included setting target conditions and experimenting toward them during the event."

Mervak says rapid improvement with Kata minimizes the post-event management of action-item lists and the need to bring staff who were not part of the event up to speed. "By practicing the Kata during the event, we didn't try to create a comprehensive action-item list that we thought would get us to our future state. We focused instead on starting with a target condition, moving toward it, and learning. At the end of the event, we were able to walk the storyboard from the room where we held the event to the manager's area and the work continued. The manager had this springboard to continue the work and continue to set target conditions associated with it."

The kaizen event format, she adds, also presents opportunities to practice the Kata, with many individuals collectively using the same language and approach. "You have more experiments and coaching cycles, broader contexts, and so an individual's sense of mastery can really increase during the event."

Kata also supports and can reinvigorate A3 thinking: Capturing initial thoughts around a problem, seeking input from others, deeply understanding the current condition, and getting to potential root causes are invaluable practices in making sure everyone works on the right problem and begins to experiment in the right direction. Performing that thinking in partnership with a Kata coach, improves the thinking and practice exponentially. Then as you start to experiment with countermeasures to root causes, IK/CK helps guide the learner and coach toward systematically addressing those causes and achieving your goals.

Ultimately, the practice of Kata leads to desired organizational performance improvements, skill development, and organizational learning that feeds into the development of the next organizational challenge.

Steward says there are both hard and soft metrics he uses at Baptist Memorial to gauge the success of Kata in an organization. "Hard metrics are that we can go throughout the system right now, and at almost every single entity there is some great success story… a billing department that in 10 months significantly improved its bottom line by driving denials down, or a nursing group that took their first-time start IVs from 35 percent to 95 percent, and then, as a result of that, the customer's ratings hit the high 90th percentile of satisfied customers. I could go on and on and on. The clinical, non-clinical, and other [successes] are happening at a faster rate than I can keep up with it."

For soft metrics, Steward points to the long-term sustainability of Kata at Baptist Memorial and the provider's "Shepherding Group." This group consists of an executive team for each Baptist Memorial entity (e.g., clinic, hospital) and middle managers skilled at Kata. Rother calls such a team the "Advance Group." This group performs Kata at the macro level, asking where the practice of Kata should be in the clinic or hospital in 52 weeks. (Baptist Memorial always uses 52 weeks as a challenge period and two to three weeks as a target condition period.) The group

sets a Kata challenge, and then begins Kata cycles to set current conditions, obstacles, and target conditions. This group applies PDSA to the Kata deployment itself.

Steward adds, "I don't want to give you the impression that we've got everything figured out and we've got every 'I' dotted and every 'T' crossed. We view everything as an experiment. We are literally learning on a daily and weekly basis about how to really be better coaches and second coaches and better shepherds. We are trying to create a meta routine or mental model, regardless of position we are in, that conditions us to *not* jump to solutions. We are trying to act our way into a new way of thinking so that we pursue problems with scientific thinking."

Healthcare centers are being challenged to build a community of lean problem solvers and coaches, and to align their improvement work and performance outcomes with business strategies that differentiate their organizations and provide better value to their customers. Only you know your strategy, challenges, and current condition: What are your patterns of improvement and coaching? What organizational behaviors exist? How vulnerable is your system to external influences? What results are your achieving? What results will you need to achieve in the future?

As you work through these questions and use A3 thinking to explore gaps in knowledge, skills, and behaviors to address your organizational challenge, ask yourself what is your next target condition? What condition do you need to bring into existence over the following year? What leader and team behaviors will you need for your improvement and coaching practice? Does your organization have the scientific thinking skills to pull it off? If you've captured your thinking on your challenge, your current condition, and started to explore your target condition, you already have begun Kata. Now it is time to take the next step.

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