



Key Words
 change management
 continuous quality
 improvement
 PDSA/PDCA cycle
 rapid cycle change

Rapid Cycle Change Sells Itself

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Strategic quality management consultants at Quorum Health Resources, LLC, headquartered in Brentwood, TN, recently introduced rapid cycle change to hospital clients. The answers to three defined questions, the Plan-Do-Study-Act cycle, and testing the improvements on a small scale under a variety of conditions are the basis of rapid cycle change. The initial results are encouraging. To obtain a deeper evaluation of the clients' experience, a modified qualitative research methodology was utilized to obtain and analyze information. Five themes emerged that support rapid cycle change as an elegantly simple and effective model.

Hospitals are under enormous pressure to reduce expenses and to make changes rapidly. This pressure is caused by the recent Medicare payment reductions, capitation and per diem payments for managed care, and reductions in traditional fee-for-service reimbursement. Providing clinically effective and cost-efficient care is necessary for a hospital's survival (Capenski & Langland-Orban, 1998). Rapid cycle change is an improvement model that offers a way to accelerate improvement in these areas. The basis of rapid cycle change is Shewhart's Plan-Do-Study-Act (PDSA) cycle (Deming, 1993). At the completion of each PDSA cycle, a decision is made to adopt and implement the change, to adapt the change (as a result of conducting PDSA cycles under a variety of conditions), or to abandon the change (Langley, Nolan, Nolan, Norman, & Provost, 1996). Rapid cycle change emphasizes the testing of changes or improvements on a small scale.

The model for improvement, as developed by Langley et al. (1996), is an approach to making improvements based on three questions:

- What are we trying to accomplish?
- What changes will bring about an improvement?
- How will we know a change is an improvement?

The answers to these questions, the PDSA cycle, and the testing of improvements on a small scale and under a variety of conditions are the basis of rapid cycle change. It has proved itself to be an elegantly simple and effective model.

The Context

Quorum Health Resources, LLC, in Brentwood, TN, is a publicly traded hospital management company. It manages more than 230 hospitals under contract for other owners by placing key management on site and providing a broad range of support and operating services, including regional networks and managed care strategies. Quorum also offers a broad array of consulting services to hospitals and physicians through individual projects or multiyear strategic-partner affiliation relationships. The Quorum-managed hospitals range in size from 30 to 450 beds and are in both rural and urban areas. About half of them participate in a quality management program called Strategic Quality Management (SQM). Under an SQM contract, an experienced quality consultant dedicates 12 consulting days per year to each participating hospital. Each consultant works with eight or nine healthcare institutions, offering education, facilitative consulting, and business improvement planning.

The Problem

SQM hospital clients complained about two things: the excessive time required for teams to complete projects and the lack of measurable, demonstrative improvement. Most SQM hospitals followed the improvement model known by the acronym FOCUS-PDCA (*F* = "Find an opportunity to improve," *O* = "Organize an effort or team for improvement," *C* = "Clarify current knowledge," *U* = "Understand variation and process capability," and *S* = "Select a strategy for improvement"; *PDCA* = "Plan-Do-Check-Act"). (*PDCA* and *PDSA* are interchangeable acronyms for the Plan-Do-Study/Check-Act cycle.) This FOCUS-PDCA model is commonly used in healthcare.

Many SQM hospital teams experienced delays while they attempted to clarify current knowledge of the process, a step in the "C" phase of FOCUS. Teams created complex, detailed flow charts. The process was so laborious that team membership suffered attrition, and many teams never progressed to the phase of understanding variation or selecting *PDCA* cycles. Some teams made the most obvious improvements during the clarification stage but often made no other improvements. The SQM process was not alone; as early as 1995, a trend toward team delays and lack of measurement was documented in the quality literature (Early & Godfrey, 1995).

A Solution

As an alternative method of improvement, the SQM consultants recently introduced rapid cycle change. The experience of a medication administration team (MAT) at Fayette County Memorial Hospital, a small hospital in Washington Court House, OH, provides an example of initial success. A process improvement team (PIT), using the FOCUS-PDCA method, had previously attempted to improve the medication administration process. The team had "become mired" in the clarification and flow-charting process and had achieved little improvement. However, a group of people was still interested in this issue and had the energy and enthusiasm to make another effort. Rapid cycle change was chosen as the method. This MAT met for 1 full day to learn about rapid cycle change and to act on that learning.

The team first developed an aim and a stretch goal (a 75% reduction in the current rate of medication administration errors). Three large areas for improvement, called *ramps*, were designated: communication, training and technique, and transcription. The MAT formed three groups around the ramps and developed PDCA cycles for each ramp. The groups were encouraged to try a small-scale improvement for 1 day. For example, the communication ramp's first cycle involved sending the medication administration record to the operating room with the patient. The transcription ramp's cycle was to remove medications from the patient kardex on the medical-surgical and intensive care units. The cycles continued to build, and by the end of 4 months, noticeable changes had occurred.

The Evaluation Method

The initial success was encouraging, but it was important to obtain a deeper knowledge of the use of rapid cycle change. Was rapid cycle change consistently improving the cycle time of teams and demonstrating measurable results? Were hospitals having difficulty accepting rapid cycle change as an alternative method for improvement? What was the experience of our customers (i.e., the teams, facilitators, and internal consultants), and what was emerging from their use of rapid cycle change? The method chosen to gather this information was the use of a focus, or input, group of SQM consultants during their annual consulting meeting. The following question was posed to the group: "What is emerging from breakthrough thinking and rapid cycle change?"

The group's unstructured dialogue was based on the ideas of Bohm (1985, 1996). Bohm's dialogue differs from discussion in that its intention is to create common understanding and to allow a "free flow of meaning among all the participants" (Bohm 1985, p. 175). The group members talk without a defined purpose to generate common meaning. The desired outcome is a coherent, fresh, and clear understanding.

The SQM focus group's dialogue lasted a little more than an hour. Its results were analyzed and categorized by using a modified qualitative research methodology. Qualitative research methodology is used for nonnumerical data, data represented

by words and comments that reflect experiences (Krueger, 1994; Miles & Huberman, 1994; Patton, 1980; Strauss, 1987; Van Manen, 1990). An adaptation of qualitative research methodology made it possible to gain insight into the experiences of SQM consultants who had introduced their hospital clients to rapid cycle change.

During the hour-long dialogue, data were obtained by recording comments on flip-chart paper, although audiotaping the discussion would have provided a more complete record. An illustrative comment was selected to name each category or theme, and supporting coded comments were identified under the lead comment. The data were analyzed independently by two SQM consultants, and the results were compared for consistency. The comments were also presented for validation to the SQM consultants who had participated in the dialogue. Both methods are utilized in qualitative analysis to increase reliability and validity.

Evaluation Results

The analysis represents only the experience of the participating Quorum SQM consultants, and it is not known how applicable the findings are to others using rapid cycle change. The five themes that emerged from the dialogue were:

- "The team members were ecstatic!"
- "If you don't document, the change initiative dies."
- "Rapid cycle change requires a different type of facilitation."
- "Rapid cycle change is easier for some organizations than others."
- "Rapid cycle change is a robust backbone with many applications."

A description of each of these themes follows.

"The team members were ecstatic": The SQM consultants had found that their clients were enthusiastic about the momentum created by rapid cycle change. Teams accomplished their improvements faster and implemented a wider variety of improvements than in the past. Some teams met for only 1 or 2 days and began small cycles, sometimes seeing improvements overnight. The teams discovered that success with small changes made enlisting stakeholder participation easier. They did not experience the high levels of conflict and resistance encountered by many FOCUS-PDCA teams because small changes appear less threatening than wholesale change.

"If you don't document, the change initiative dies": It appears that the documentation structure for rapid cycle change teams is easier to maintain than the previous team documentation structure. Clear documentation supports and keeps the focus on the change initiative. The cycle documentation is based on inquiry; it appears to support critical reflection, which in turn supports learning and growth. Internal or external facilitators, however, must stay abreast of documentation to capture the learning and later to be able to tell a coherent story of the improvement. If cycles are well documented, it is much easier to tell the story of the improvement and its measurable results.

Teams created storyboards around the three questions and the cycle reports. The discipline of writing predictions as part of the planning cycle proved valuable in evaluating success and identifying potential problems. Hospital clients liked to decide in advance the measures they would use to judge improvement and to document them. Doing so helped in planning whether to modify the cycle in its next iteration or to adopt the improvement, and it probably contributed to the reduction in stakeholder resistance and exacerbation of unhealthy conflict. The process of naming political barriers prior to implementing a cycle helped to reveal assumptions and thus to support creativity and openness.

“Rapid cycle change requires a different type of facilitation”: The consultants noted that the facilitator’s role changed. For example, teams were accustomed to looking for the one big change—“the silver bullet”—and to collecting data for long periods. As teams began to initiate rapid cycle change, facilitators helped them talk about their hunches and specifically to avoid judging the validity or effectiveness of an idea before it had been tested. Facilitators also helped teams design the initial cycles to reduce the scope and complexity of changes, but they often increased the number of changes. Team members were encouraged by facilitators to test their ideas in a variety of circumstances. This testing enabled teams to reduce the amount of data collected, but actually gave a broader view of the potential impact of the change on the system.

“Rapid cycle change is easier for some organizations than others” and “Rapid cycle change is a robust backbone with many applications”: Rapid cycle change appears to be easier for some groups than for others. This is not surprising given the nature of variation, but the SQM consultants appeared to be talking about something beyond normal variation. Rapid cycle change contains no linear, detailed step-by-step method. Instead, the improvement effort is guided by the exploration of the three basic questions that are the backbone of rapid cycle change (Langley et al., 1996): What are we trying to accomplish? What changes will bring about an improvement? How will we know a change is an improvement? What are we trying to accomplish is always the first question asked, but the other two questions can be used repeatedly and interchangeably. Small cycle changes are developed and then tested before they are implemented. This method is very flexible and robust, but requires living with multiple realities and tolerating ambiguity for a time, which could be a caveat for some organizations.

Recommendations

Although rapid cycle change is not the silver bullet we all seem to look for, we believe it is a valuable method—simple, effective, and worth the effort required. A firm grounding in Deming’s System of Profound Knowledge (Deming, 1993) would be useful, and knowledge of action science and action learning may be helpful. Facilitation skills that bring assumptions to the surface, that appreciate, recognize, and encourage dialogue, and that perceive emerging thoughts and support different realities are neces-

sary. An environment that supports creativity and change is critical. If all else fails, just remember to ask (Langley et al., 1996): What are we trying to accomplish? What changes will bring about an improvement? How will we know a change is an improvement?

Authors’ Biographies

Jane Taylor has served as a SQM consultant for Quorum Health Resources, LLC, in Albany, NY, for the last 5 years. She was an assistant administrator and hospital administrator for Quorum for 10 years before joining the SQM consulting practice. She is currently completing a doctorate at Teachers College, Columbia University, NY; her area of research is the relationship between learning and commitment to continual improvement in the healthcare setting.

Virginia Crowe has served as a SQM consultant for Quorum Health Resources, LLC, in Ohio and Michigan for the last 6 years. Prior to joining Quorum, she worked in the areas of clinical nursing and quality management in acute care hospitals. Currently she is pursuing a master’s degree in information systems management at Ferris State University.

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Acknowledgments

The authors acknowledge Quorum Health Resources, LLC, for encouraging them and providing the wherewithal to implement rapid cycle change with SQM clients. The support and encouragement of Susan Peach, vice president for strategic quality management, and group vice presidents Robert Dwyer and the late Chuck Perry were invaluable. The authors thank their colleagues and fellow consultants who were courageous enough to try a new approach to improvement. The authors are indebted to The Institute for Healthcare Improvement for exposure to rapid cycle change in the Collaborative

for Adult Intensive Care. Finally, the authors thank Tom Nolan and the other authors of *The Improvement Guide*.

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Objectives

By participating in this independent study offering, the reader will learn

1. how facilitation of rapid cycle change teams is different from traditional team facilitation.
2. how qualitative methods differ from quantitative and how dialogue can be used to evaluate a program.
3. why teams prefer rapid cycle to FOCUS-PDCA and about one team's results in reducing medication administration errors.

CE Questions, JHQ82

- Teams are ecstatic about using rapid cycle change because
 - a. they document less.
 - b. they identify one key concept for improvement.
 - c. they accomplish their improvements faster and implement a wide variety of improvements.
 - d. all of the above.

2. Qualitative research methods are
 - a. preferred for nonnumerical data.
 - b. used only when there are no quantitative data available.
 - c. not useful in organizing comments from a group.
 - d. both a and c.
3. One reason some organizations find rapid cycle change easy to use is
 - a. they don't have to document as much.
 - b. they can live with multiple realities and tolerate ambiguity.
 - c. they have a cadre of facilitators available to support the effort.
 - d. none of the above.
4. Some organizations find rapid cycle change difficult because
 - a. they prefer a detailed road map.
 - b. change happens slowly.
 - c. they lack infrastructure.
 - d. all of the above.
5. Successful implementation of rapid cycle change requires
 - a. a firm grounding in Deming's System or Profound Knowledge.
 - b. facilitation skills that bring assumptions to the surface and support dialogue.
 - c. an environment that is creative and open to change.
 - d. all of the above.

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