

Designing Your Quality Culture Through Quality Best Practices

by Ray Schneider

“Quality is the result of a carefully constructed cultural environment; it has to be the fabric of the organization, not part of the fabric.”

Quality Guru Phil Crosby



The Trend Toward Quality

If you are reading this whitepaper then you are likely interested in better understanding the myriad issues associated with improving your organization’s quality practices and quite possibly, its reputation with employees, customers and the public as well. The trend towards quality began in earnest in the United States after WWII when a few now-celebrated Americans including W. Edwards Deming, Joseph Juran, and Walter Shewhart defined a set of

management philosophies, quality improvement tools and techniques that revolutionized how we think about and practice quality today. The first students of these new techniques were the Japanese who, in the wake of WWII and with the express support of the US military and government, built a national culture of quality in manufacturing that became the envy of countries around the world. It wasn’t until the late 1970s and early 1980s that these very same quality practices were adopted by American industry.

There have been many incarnations of these quality philosophies and practices in the United States over the last 30 years: Total Quality Management (TQM), Work Reengineering and Six Sigma are the most popular of the methodologies. Regardless of the name, taken as a whole, these various quality methodologies were all designed to transform management’s quality philosophy and leverage

the knowledge and experience of an organization’s employees through use of qualitative and quantitative techniques for measuring, understanding root cause, and improving product and service quality.

Do You Really Want a Quality Culture?

It is a truism that people in organizations want to do quality work. Very few people go to work with a premeditated plan to generate problems, defects, bad product or service. “We’re an organization that values its customers and takes extensive measures to ensure the quality of our products and services”, is a comment often heard from leaders. Yet in many organizations in every industry every day, errors are made, defective services are delivered, critical communications are flawed, and customers are left wondering if anyone really cares. An independent evaluation of these organizations would reveal

that “in practice” they do not value quality as much as they say they do.

Nor do they have a quality culture. A quality culture is defined as an organization’s total set of values, beliefs, social norms and patterns of behavior that place a high degree of importance and understanding on a quality philosophy and set of operating quality principles.

The critical issue to recognize is

quality philosophy with its quality practices? And what would it take to establish a quality culture? The answer to both of these questions is essentially the same. Organizations need to understand and implement all four of the following “best practices” of a highly functioning quality system:

- A well-developed and communicated leadership philosophy and strategy for quality

- objectives for individuals and the operation as a whole
- The establishment of processes and SOPs designed to measure quality, understand root causes of quality problems, take corrective action and prevent reoccurrence of problems

Let’s discuss each of these four quality “best practices” in more detail.

Developing a Quality Philosophy and Strategy The Leaders Role is Paramount

Organizations are very much like individuals: they usually resist change until things get bad enough that the status quo is no longer an option. And as it relates to quality, resistance to change can be strong because to change means one has to first admit there are quality problems in the organization, an admission that can be uncomfortable at best and sometimes job threatening. For this reason and many others, admission of the problem and initiation of the change has to start at the top.

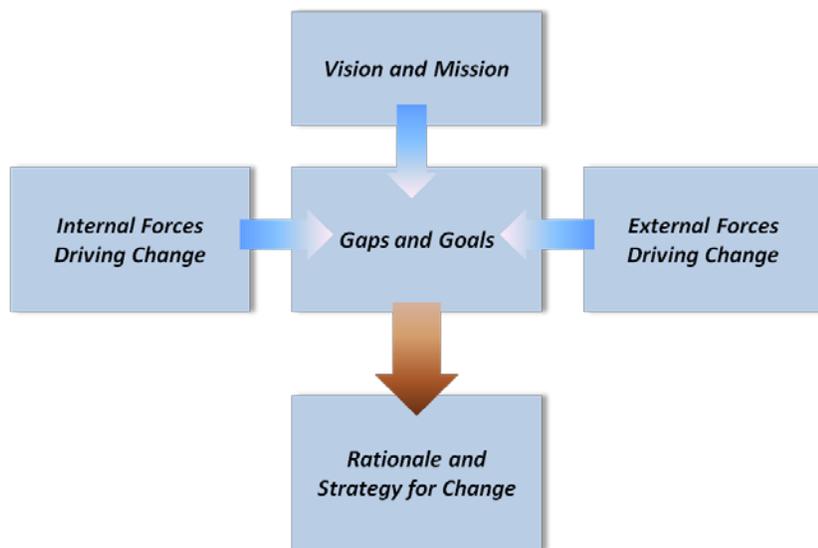


Figure 1 – Establishing the Rationale for Change

that most people have an intuitive sense of the importance of quality to the long-term success of an organization. But they do not necessarily have the skills or organizational support systems to make their desires a reality.

What would have to be done to align an organization’s espoused

- Comprehensive understanding of the differences between the quality department, quality assurance (QA) and quality control (QC)
- Clarity regarding what quality means and integration of quality-based metrics into the goals and

....from the beginning, leaders must communicate the rationale for change...

And so from the beginning, leaders must communicate the rationale for change, which must arise from an integrated understanding of the forces

driving change plus the mission and goals of the organization, as illustrated in figure 1.

Reasonable people generally respond positively to the need for change when the reasons are communicated firmly and with respect. Create forums for people to “kick the tires” of the change, challenging it as they feel the need. On the one hand, give people time to acclimate to the new reality, but at the same time, be clear the status quo is no longer an option; the only things open to discussion are the plans for change, not the change itself. Some leaders, with empowering leadership styles, make the mistake of delegating responsibility for quality to first-line supervision without first understanding and accepting their role in ensuring the integration of the new quality philosophy into the culture of the organization. First-line supervision does have a critical role to play but in order for them to be successful over the long term, senior leadership needs to establish the quality philosophy for the organization and the initial quality strategy and plan. Anyone who has ever been to a large family gathering has invariably gotten into an argument over the best route to get there – at least that was the way it was growing up in my family. And so in the absence of an overall quality philosophy, strategy and plan there will be arguments, wasted energy and most importantly, misaligned goals in your organization regarding “how to improve quality”. The importance of leadership’s responsibility in this regard cannot be overstated.

A statement of leadership’s quality philosophy should also be easy to understand and be a reflection of the organization’s aspirations. Because it is aspirational, it may also be a challenge for the organization but still be reasonable and attainable. It should not be based on an underlying assumption of blame as quality efforts with this kind of negativity rarely meet their objectives and have a low chance of being sustainable. However people do need to be responsible for quality. It has to be seen as a team game plan where individuals are held accountable to play their positions well.

It’s important to recognize that every organization begins their “quality” journey at a different place on the quality roadmap. For organizations that have yet to define what quality means and what quality looks like for each of its major business processes, early quality strategies will

Data enables the organization to minimize the influence of subjective opinions about quality...

include developing scorecards and designing data collection procedures so that a quantitative baseline for quality can be established. This quantitative quality performance baseline forms the basis for more sophisticated quality strategies including establishing a root

cause, problem solving process for continuous improvement.

Designing and implementing a continuous improvement strategy logically follows from the development of quality data collection systems. Data enables the organization to minimize the influence of subjective opinions about quality; it objectifies the “state of quality”. Continuous improvement aligns the objective insights into quality issues (gained from data analysis) with the knowledge and experience of people in the organization. The goal is to improve, and sometimes dramatically transform, performance. The best continuous improvement processes are in organizations with empowering leadership paradigms and team-based, problem-solving methodologies.

Regardless of where your organization is on the road to quality, develop a quality strategy that will move you further down the road and then operationalize that strategy with an implementation plan to achieve the stated strategies and their associated goals. Recognize that this strategy will be time-bound and will have to be reviewed and updated on a regular (annual) basis to reflect the organization’s ever-changing reality. And recognize that strategic goals (like any well-designed goal) need to be **specific, measurable, aggressive and achievable, relevant and time bound (SMART)**. So leaders need to take stock in how fast their organization can integrate new behaviors and processes and set strategic quality goals accordingly.

How the leadership philosophy and strategy are communicated is also very important. Be prepared for, “So I heard what leadership said about their philosophy and I read the strategy. I already do quality work and I can’t work any harder.” Leadership should anticipate this initial response to its quality initiative and be ready with answers that are positive, accurate and supportive. First, organizational initiatives to improve quality rarely require people to work harder. People may, however, have to learn new skills (root cause analysis), perform new activities (quality data collection) and interact with colleagues in different ways (teams). Most importantly, employees will have to be open to the possibility that quality and productivity have the potential to improve even if they don’t exactly know how to achieve the goals at this time.

that they do not make a distinction between quality assurance (QA) and quality control (QC) and do not perform both with equal vigor. In simple terms, QC “detects” problems after they have occurred and quality assurance (QA) prevents those problems from reoccurring. It is common that organizations perform some amount of formal QC activities but do very little formal QA activity.

QC “best practices” will typically include but not be limited to:

- Scorecards of key quality metrics at business and unit levels
- Data collection system for scorecard quality attributes (metrics)
- Quality data analysis, trending and reporting
- Integration of quality data into management reporting and review processes

- Basic training in quality control philosophy, methodology, tools and techniques

QA “best practices” will typically include but not be limited to:

- Chartering of strategic initiatives for improvement
- Utilization of quality data for purposes of identifying root causes of problems
- Cross-functional team based problem solving
- Action planning in support of continuous improvement
- Formal customer satisfaction and outreach strategies
- Documentation of workflows for key business processes including points for quality measurement
- Formalization of training and education requirements, including potential need for formal qualification and disqualification procedures

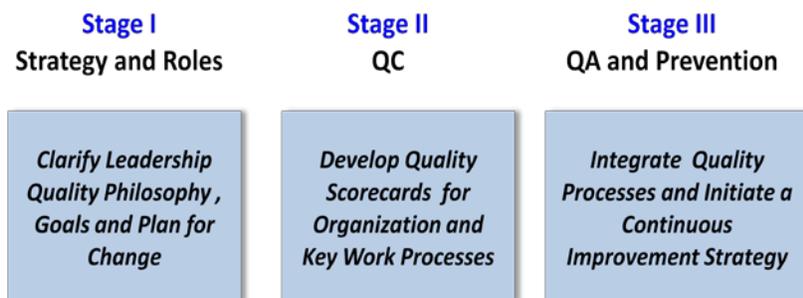


Figure 2 - Three Stage Roadmap to a Quality Culture

Quality Control is Not Quality Assurance

Another important reason for the existence of a gap between some organizations’ quality aspirations and current quality realities is

- Quality data and business process auditing (including confirmation of data validity and reliability)
- Quality data archiving

The columnist and author David Brooks recently observed that “we emphasize things that are rational...and are inarticulate about the processes down below.” He was most assuredly unaware of how appropriate his comment was to the design of quality systems.

QC activities are commonly performed because “measuring” the quality of a product or service is rational and intuitively understood as something important to do. The idea of “checking our work” is something that we’ve been taught from an early age. But to understand why things go wrong, to look “inside” and understand the root causes

of problems requires an understanding of the “processes down below”. Most of us are much less comfortable with this type of analysis than with data collection. Some of the reason for this dichotomy of behaviors can be found in the teachings of our western culture and some in an understanding of human nature. Regardless of the reason, this suggests that organizations will often find it more difficult to implement and sustain QA practices than QC.

Meantime, the distinction between QA and QC should not be confused with the name that organizations give their quality functions or departments. Common names include QA/QC, Quality, Quality Assurance, QC and more. Regardless of the

...measuring the quality of a product or service is rational and intuitively understood as something important to do.

name, if an organization chooses to have a formal quality function, a group led by a person with a title like Director of Quality, it typically shares responsibility for both QA and QC with management and operational staff in a way that is documented and well understood. The old adage “if everyone is responsible then no one is responsible” especially applies when referring to quality. And so roles and responsibilities need to be well defined.

If on the other hand, an organization is structured without a formal quality function, then clearly, responsibility for quality lies with the leaders of each operating unit in the organization. In this case, as in the previous case, these leaders need to understand the overall organizational quality philosophy, be trained in the principles and techniques of quality, and be consistent in their approach to quality across the organization.

The bottom line is that both QA and QC are essential to perform equally well if an organization wants to have a mature and highly-functioning quality culture.

What Does Quality Really Mean?

The short answer to the question, “What does quality mean to our organization?”, is twofold. First it means that the processes by which products and services are delivered meet or exceed agreed upon levels of performance. Secondly it means that each person in the organization is able to describe what quality means and looks like within his or her areas of responsibility. At a minimum, in-process performance and outcomes must be defined and measured. Let the process “talk to you” through the quality data that you collect.

The two most common categories of “quality metrics” are variable measures and attribute measures. Variable measures assume a numerical value and exist on a scale of measurement. Attribute measures are “counted” and

require a precise definition for the particular measure in question. For example, for an error to be counted it needs to meet the specific criteria for an error of that type.

Common variable measures include:

- Time (to complete an activity)
- Length (pages, words etc.)
- Cost

Common attribute measures include:

- Frequency of occurrence (or % of time that the event occurs)
- Number of errors/omissions on a document
- Number of complaints

Opinions and perceptions should also be considered as potential quality data. These types of quality measures are collected using surveys of various types. Surveys are usually administered periodically and are appropriate for situations like educational events and customer satisfaction situations where someone’s perception about their experience is being recorded. The structure of survey questions can take on a variety of forms including but not limited to:

- On a scale of 1-10, how do you feel?
- How frequently does something happen? (very frequently, somewhat frequently etc.)
- Agree/Disagree with a statement (strongly agree, somewhat agree, etc.)

- Questions that require a Yes/No answer
- Open ended questions – people write-in an answer

This type of quality data is subjective in nature but is very valid as a means by which organizations can track and trend their performance.

The bottom line is that there are many possible measures of performance for every process and activity. As a result it sometimes happens that organizations collect too much data on too many metrics creating contempt for the quality initiative as a whole. Collect data on only as many metrics as is necessary to enable the organization to anticipate problems before they become crises, quickly take corrective action after problems occur, and also plan for continuous improvement. To that end, select metrics that are both “lead” and “lag” indicators of quality performance. In-process metrics are often lead indicators of performance because they communicate early signals of an impending problem before the problem fully manifests itself. An example of a lead indicator might relate to clinical trial enrollment: how well enrollment goes will typically be one predictor of how long it will take to complete the trial. End of process metrics are usually considered “lag” indicators of performance, because at that point, there is no more time to take corrective action to change the outcome. All that can be done is to try to prevent the same problem from happening again.

In addition, select a set of metrics that accounts for the majority of the “effort” expended by the organization and that is aligned with its mission. Consider metrics related to activities that are core to your business and that consume significant proportions of your budget. Also consider metrics for those activities and work flows that, today, may be only a minor contribution to your business but that are targeted for growth.

Collecting process data is the first critical step towards having your processes “talk to you”, the second step is learning how to “listen”. This requires the conversion of the raw data into usable information through statistical analysis and utilization of various graphical tools including but not limited to Pareto charts, histograms, run charts, control charts, scatter plots and more. These graphical

...graphical tools enable the person to listen to their process and gain insight into process variation...

tools enable the person who is learning to listen to their process to gain insight into process variation, the most fundamental and important factor to manage in the whole discipline of quality assurance and control. Understanding how to “listen” to the variation, gain control over it and reduce it, is a key quality best practice.

Robust quality initiatives also integrate these quality measures into the goals and objectives for individuals, groups and the organization as a whole. Most people today are familiar with the concept of personal goals and objectives. For some people, their performance is also judged based on group or team performance dimensions. And it is commonplace that the dimensions upon which people are often judged are subjective in nature. It is less common that individual and organizational performance metrics include objective “quality” measures. This explains to some extent why there are gaps between many organizations’ stated quality philosophies and the reality of their quality performance. Quality measures must be integrated into the performance evaluation process for individuals and groups in order for a quality philosophy to have a chance at driving the establishment of a quality culture within an organization.

Invest in Quality Processes

The fourth and final reason why these quality gaps exist is the absence of quality processes, SOPs and the infrastructure required to support the intentionality of individuals to improve. Quality processes are enablers of excellence in individual and group performance. They leverage the intentions of individuals and enable groups to accomplish what individuals alone cannot. They are action-oriented manifestations of management’s

philosophy and messages about quality.

In the absence of strong quality processes, organizations resemble local communities replete with well meaning, small, nonprofit organizations all working to improve the quality of life for its citizens but rarely aligning resources and goals to accomplish ambitious and lasting change. Quality processes and infrastructure drive alignment and coordination of improvement actions thereby maximizing the positive impact of quality initiatives.

Quality processes represent the prerequisites for dramatic improvements in overall organizational quality by proceduralizing those actions necessary to establish a strong and sustainable quality culture. Common quality processes include but are not limited to:

- Strategic planning that focuses on quality issues
- Structured and well-defined roles and responsibilities
- Structured methodology for designing and implementing work processes
- Collecting and analyzing quality data (converting data into information)
- Integrating quality information into management reports, agendas and organizational scorecards
- Broad-based and regular communication of the results of quality data analysis

- Forming problem solving teams around specific quality issues
- Identifying true root causes of quality problems
- Action planning and accountability around quality issues
- Maintaining current workflow descriptions of core business processes
- Training in quality principles and tools for continuous improvement

All these quality processes are important, but one deserves special attention: structured methodology for design and implementation of work processes. In many instances, critical work processes develop organically, casually, accidentally – like a car accident at an intersection. The results are products and services that are inefficiently produced and that exhibit variable quality. At the other end of the spectrum, many organizations do put a lot of effort into the design of important work processes but over time, through changes in personnel, materials, policies and other factors, these processes no longer represent the way work is actually performed. In both cases the result is the same – frustration and lost productivity. A structured methodology for designing, updating and implementing work processes is thus critical to establishing a quality culture.

When fully implemented, these quality processes move an

organization toward a true quality culture.

Putting All the Interlocking Pieces Together

This discussion focused on the importance of four “best practices” required for the development of a quality culture:

- Leadership philosophy and strategy
- Quality control and quality assurance processes and actions
- Quality metrics and goals
- Quality systems, processes and SOPs

Figure 3 illustrates the interconnected nature of these “best practices”. It is composed of two simple interlocking and reinforcing loops. Following in the direction of the arrows, the loop on the left shows the reinforcing relationship between Philosophy, Strategy, Action and Cultural Norms. You can “enter” the loop at any point. Let’s start with Philosophy. Management develops a philosophical foundation for a quality culture...this drives the design of a strategy to bring life to the philosophy...the strategy includes specific initiatives that require people to take actions to improve quality...over time these actions begin to permeate the fabric of the organization and change the culture...changes in culture then impact the philosophy of the organization. The “+” signs indicate a positive or reinforcing relationship between successive elements in the diagram.

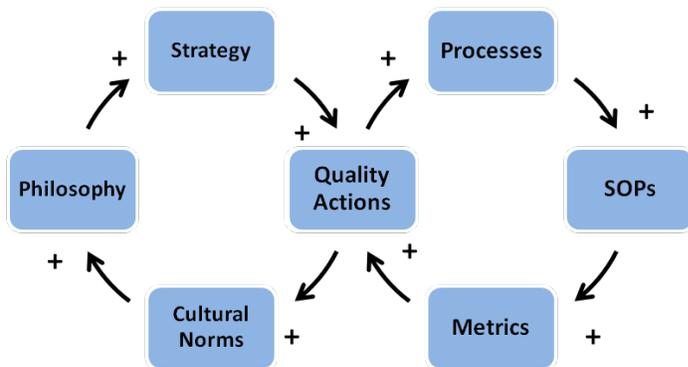


Figure 3 - A Systems Thinking Model for Achieving a Sustainable Quality Culture

Meantime, the loop on the right shows the reinforcing relationship between Processes, Metrics, SOPs and Actions. Both loops have “Actions” in common. This diagram illustrates that each factor in the development of a quality culture supports and reinforces every other element, directly or indirectly. If even one factor ceases to function effectively then the whole system “short circuits” and ceases to be reinforcing; instead the opposite occurs, the “+” signs change to “-” signs and the system degenerates at an increasing rate over time.

Closing the gap between an organization’s espoused quality values and its actual practices, thereby creating a true quality culture, is a challenging mission; it is multi-dimensional, it takes time, it takes patience and it takes constancy of purpose.

It takes a comprehensive approach that includes addressing all of the best quality practices that can drive a quality organization, not just in words, but in measurable and continually improving dimensions.

Ray Schneider is the Owner and Founder of Process and Quality Consulting dedicated to improving the quality of its clients products and services through business process improvement, improved customer focus, performance measurement systems design and implementation, and leadership alignment.

Visit: www.rayschneiderconsulting.com