Improving the way organizations run through participative planning and management.
Leadership

Ko Nishimura—Solectron is an independent supplier of customized design and manufacturing services to original equipment manufacturers. The first category of the Baldrige Criteria deals with the effectiveness of company leaders, taking into account the needs and expectations of all the key stakeholders. Our leadership system addresses how we set the direction and seeks future opportunities for the company. It also incorporates clear values, company direction, high performance expectations, a strong customer focus, and a continuous learning philosophy.

Senior leaders communicate and reinforce values, directions, expectations, customer focus and their commitment to learning throughout the workforce. Our senior leaders review the company’s overall performance, and use the review process to reinforce company directions to improve the leadership system. As the President and CEO, my mission is to systematically and consistently increase the value of the enterprise.

However, it is important to remember that cooperation comes from energizing and aligning your people as they continue to provide better products and services. It also comes from sustained and consistent performance.

More importantly, the company’s ability to create wealth depends on the people’s ability to work efficiently and effectively to increase the capacity to get things done better. This means putting a high priority on self-development in terms of continuous learning and change.

Defining “criteria” within the Baldrige framework

Solectron uses the Award criteria to further our efforts in achieving world class competitiveness, increasing market share, sustaining extraordinary growth, improving cooperation, and building a highly skilled and motivated workforce. These goals are in complete alignment with the Baldrige goal of performance excellence.

Ordinary people can do extraordinary things in the right environment. The
Baldrige framework guides an organization to develop processes that systematically pursue higher levels of overall performance, including quality and productivity, which is always rewarding to our employees.

We have seven basic, common beliefs that exist at each of our sites around the world. We use these beliefs to govern everything we do:

1. Customer first
2. Respect for the individual
3. Quality
4. Develop supplier partnerships
5. Business ethics
6. Stockholder value
7. Social responsibility.

In addition to our beliefs, in 1997 we updated our mission statement (Figure 1) to reflect our expanding capabilities as a global provider of total design, supply chain and manufacturing solutions.

Solectron participates in a time-based segment of the market. The customers that we serve value our ability to get their products to the market faster, with higher reliability, and higher volumes, and into distribution channels with extreme velocity. The real challenge arises when you consider that product cycles are becoming shorter and shorter. As a result, the future belongs to those who get better at getting better. In order to meet those challenges, an organization must be agile. At Solectron we define agility as the sustainable ability to consistently thrive and profit in an environment of unpredictable and rapid changes.

Success in Solectron's market segment depends on time and agility

However, this presents yet another challenge—how do you remain agile as you grow the organization? Solectron has been successful by organizing in such a way that allows us to behave as if we were a small, nimble organization, so we can meet our customers' needs. Like many manufacturing companies, Solectron is very process driven. In order to achieve the results we expect, our process is built on fundamentally sound methods, people, materials, and tools. We also must have a set of integrated common processes in a robust information system. This will enable Solectron's 25 sites worldwide to communicate fluidly and present a common look and feel to our customers. This increases the ease of doing business with Solectron, which contributes to lowering the total cost of ownership.
The key part of achieving desired results is planning, the “P” of the PDCA (Plan Do Check Act) cycle. We all actively participate in this strategic planning process. As this chart shows (see Figure 2), Solectron’s strategic planning process focuses on a three-year planning horizon, and the plan is updated annually.

The strategic planning process begins with top leadership, and as CEO, I lead the process with my senior executives, including our site general managers, senior VPs, and corporate staff. In this process the mission, vision, beliefs, and current strategies are reviewed.

The process used for developing our one-year action plan is based on our three-year plan. The AOP, or the Annual Operating Plan, is the first year of the Long-Range Planning process, or the LRP, and forms the basis of the annual business plan. The Hoshin plan is the annual improvement plan.

In 1995 we introduced the concept of Hoshin planning as our improving planning processes. Our Hoshin process starts with our three-year plan objectives from which annual improvement objectives are derived. The rest of the company then develops improvement plans cascading from the objectives of the CEO. Some people may refer to this process as policy deployment.

As part of the Check process of the PDCA cycle, I conduct quarterly reviews of each of the Solectron sites in concert with my regional managers. During the review I like to cover financial, sales, marketing, operations, and human resources. I’m most interested in how the site results compare to the plan and what measures they have put in place to close any gaps.

During the site visit I almost always conduct an employee roundtable, which I consider a very good method for listening to the employees and getting a sense of their level of well-being and satisfaction. My objective is to make Solectron the best place to work for our employees.
CASE STUDY

Solectron Corporation, Malcolm Baldrige National Quality Award Winner, 1997

Four dimensions of rapid growth

Solectron has achieved rapid growth over the last 20 years by investing in our internal structure. We have built a solid foundation on which we can sustain and propel future growth and successfully meet or exceed our customer demands and expectations.

We see growth in four dimensions: 1) global capacity; 2) manufacturing capability; 3) design capability; 4) technology and information system integration.

Global Capacity—In our first 14 years we were a small regional company developing and improving assembly capabilities and investing in automation and state of the art process technologies. Once a strong foundation was established, we rapidly expanded in the Asian Pacific, Europe, and North America. As we begin our third decade, we continue our expansion strategy by moving into South America, where we have established new operations in Brazil.

When Solectron was awarded the Baldrige Award for the first time in 1991, the company was relatively small, in a single location, regional supplied, and we were a Silicon Valley based electronics company. We had about 2,000 employees in Milpitas, California and just over one million square feet of manufacturing capacity on a 40-acre parcel.

Solectron's global manufacturing resources are much greater today. We continue to invest in our internal structure, so that we are strategically located to provide concentrated, electronic, engineering and product development centers with quick and flexible response. We also have locations at low cost manufacturing centers, and logistically advantageous centers to support our customers. Today we have over 25,000 employees and five times the manufacturing capacity as when we started. Future expansion plans will address needs for additional regional low cost and supply distribution centers.

Manufacturing Capability—Our second dimension of growth has been our manufacturing capability. We have systematically built broader and deeper manufacturing capabilities to meet our customers' increase in demand for total manufacturing solutions. We have expanded from simple assemblies to offering a wide range of services. We're constantly making investments through internal development and acquisitions, to broaden our design, supply chain, and manufacturing capabilities.

Our goal is to continue to exceed our customers' expectations by using the most advanced process to drive down cost and increase efficiencies throughout the entire product life cycle.

Design Capability—Our third dimension of growth is design capability. With the acquisition of Force Computers, we are now able to offer a full range of integrated design and development solutions to meet our customers' demands for additional pre-manufacturing services. We're continuing to invest heavily in our design capabilities, since this is the area we can offer significant added value, and many of our customers are taking advantage of this. We are able to leverage our expertise in design and show more cost efficiency in volume manufacturing. In
addition, with our increased design capabilities, we can shorten our customers' design cycle through the supply chain, achieving a higher return on assets. We have expanded our portfolio of design capabilities. In the past we had the ability to design simple printed circuit boards—then we enhanced our design capabilities and took on more complex boards and systems. Now we have a leading edge in developing the latest technology and innovations to our design capabilities.

We're also developing mechanical design, systems design, and test design capabilities. Expanded design dimensions enables our original equipment manufacturing customers to outsource their total manufacturing requirement with a greater confidence.

Technology and Information System Capability—In addition to our high standards for manufacturing processes, Solectron puts great emphasis on using technology and information systems to help run our business and manage our customers' and suppliers' information more effectively. In fact, we're making significant investments in this area to put a computer system in place that will help us deploy and integrate our data and processes on a global basis.

Our advanced technology group works on a partnership where a number of our leading customers help develop manufacturing processes to utilize the latest developments in electronic component packaging, printed circuit board assembly, and automation equipment. The advanced technology group develops the manufacturing processes, helps set them up, and qualifies the process in all of our manufacturing locations.

Due to our global infrastructure, we must ensure that all of our business processes and information systems are on a common framework, fully integrated with all of our business units. To do this, we use a template for critical business processes for each of our new sites and acquisitions (see Figure 3). Each facility can communicate, exchange material, manufacturing and financial data, and engineering information effectively.
CASE STUDY
Solectron Corporation, Malcolm Baldrige National Quality Award Winner, 1997

Growth and development of employees, leaders

The principal driver in the Solectron belief structure is the creation of wealth for all stakeholders. Solectron creates an environment where an individual who wishes to advance and maximize his or her potential can do so by working hard, working smart, and doing what it takes to satisfy the customer. We are committed to providing our employees with the opportunity to learn, advance in their job, and add value for the customer.

As Solectron’s general population grows, so does the organization’s need to grow the leadership ranks. Due to our continuing fast growth, the corporation is investing heavily in growing future leaders and executives. All professional employees who are above entry level, or whose performance places them in the first or second quartile, must have a development plan that addresses learning and training objectives for growth, transfer, and promotion. The result of this rigorous planning can be seen not only in the promotions, but also in the company’s ability to attract, hire, and retain management teams from acquired sites. The minimum retention has been 85%, and except for one that is at 85%, the rest of the acquired sites are in the 90s.

An overview of financial results

The Baldrige Examiners review the company’s financial stability, management and processes. Solectron won the Baldrige Award not just for its ability to create a high quality product, but also for its consistent financial performance and strength.

Solectron’s financial capacity is the strongest in the electronics manufacturing services industry, and our financial condition is the steadiest. For a service business, it is critical to understand that our human assets are indeed our most valued assets. Solectron’s Human Resources team has sustained a dedication and commitment to the business, which is a major differentiator for us. I’m very proud to report that we have a highly motivated workforce, which has a long average tenure in spite of rapid expansion and acquisitions. Our compensation philosophy is to pay for performance and reap the reward for results.

In the past six years we have achieved constant and rapid sales growth averaging over 55%. We delivered a net income growth of 61% compounded (see Figure 4). We’ve approached 20% return on equity target, even as we raised additional equity. Our return on equity has also risen to approach the 10% mark.

Figure 4. Revenue and Earnings Growth

<table>
<thead>
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<th>Financial Year</th>
<th>Revenue Growth $ x 1000 (Thousands)</th>
<th>Earnings Millions</th>
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<tr>
<td>FY 92</td>
<td>0.470</td>
<td>14.000</td>
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<tr>
<td>FY 93</td>
<td>0.830</td>
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<td>173.000</td>
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<tr>
<td>FY 98</td>
<td>256.000</td>
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</tr>
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</table>
Success extends to customers and suppliers

Further testament to Solectron's financial success came in 1996 when the company made the Fortune 500. I'm very proud of the recognition that has been bestowed on the company as one of the largest and most successful in the United States. However, I want to make it clear that this would not have been possible without the tremendous effort of each and every Solectron employee worldwide.

Our success helps our customers to be successful, and vice versa. Our strategy is to partner and develop a long term relationship with our customers, who tend to be leaders in their industry and are achieving high stature in their annual revenues and ranking in the Fortune 500. On the other end of the supply chain, we have developed a very healthy supplier partnership that emphasizes communication, training, measurement, and recognition.

Our key suppliers are also industry leaders. At Solectron we value our suppliers as much as we do our customers, so much so that 75% of Solectron's total revenue is derived from materials. Strong three-way relationships are critical for mutual success for customers, our company, and our suppliers.

Conclusion: Baldrige criteria critical to success

In closing, I want to reiterate how important the word “criteria” is. It is truly the foundation for Solectron's leadership system. Since 1989 when Solectron first entered the award process to get examiner feedback on how we could improve, the company has continued to use the Baldrige criteria, both external and internal assessments, to drive business excellence company-wide.

The Baldrige road map has helped Solectron grow and thrive. Over the last five years, we have consistently satisfied the customer, and as a result, we have grown the business at a compound annual rate of nearly 60%.

Strategic Planning / Customer & Market Focus

Mark Holman—Solectron is in a very competitive business environment. Our core business is electronics manufacturing services, which is a very dynamic sector of the manufacturing industry. Solectron's goal is to offer its customers the significant competitive advantages that can be obtained from manufacturing outsourcing. This includes providing access to advanced manufacturing technologies, shortened product introduction cycles, reduced cost of production and more effective asset obligation.

Our growth rate has been at a compound annual rate of nearly 60%, and this requires us to think very strategically about our business. We need to understand how to grow the business, what resources it will take to succeed, and what we will need for the future.

We have a closed-loop, three-year horizon planning process, as shown previously in Figure 2. We first develop a long-range view of where we want to take our business in three years, and then we work out the tactics and details of how to make
An overview of the three-year strategic planning process, continued

Setting the vision, objectives and mission

Our president sets our strategic vision and company objectives in the three-year plans, which update our mission at the same time. This annual process of rethinking what business we’re in is essential to our planning process. In the electronics industry, things are moving very rapidly, and every year we need to continually look at what mission we need to be providing for our customers. We are in a service business, so we need to figure out how to best interact with our customers.

Financial objectives such as a 20% return on assets

This process also helps set financial targets, such as return on assets (ROA), which translates into return on equity (ROE). One of our seven beliefs is the creation of stockholder wealth. Our president sets targets for each of our business entities, trying to achieve a 20% return on assets within our business.

We segment our business into key elements with different profit targets but the same essential return on assets target. We set objectives of where we want the business to be in relation to a 20% ROE. We then take the long-range vision of where we want to be, and translate that into two key areas. One is where our functional leaders develop their vision of what capabilities we need to succeed in three years. Our ten key functional leaders each drive a vision at the senior level, which then cascades down to the people around the world responsible for that activity.

Secondly, we develop targeted account plans for our top 25 global customers, to understand their current requirements and anticipate them over the next three years. We develop a global plan for our top 25 customers, which encompasses about 80% of our revenue three years out.

Executive leadership gets very involved with the planning process

We have a considerable amount of executive leadership and involvement in our planning process. They make sure that we understand where our customers are going and what it takes to succeed three years out. Underlying this planning process is the core knowledge of our customers and markets. We develop a fundamental knowledge base that we share throughout the company around the world. We need to understand where our customers’ customers are going, what our competitors are doing, what emerging trends are happening in the industry, and what are potential new threats and dynamics in the marketplace.

Breaking down top-level objectives by region and by site

We then take these top-level objectives and break them down into regions and sites. We’ve organized our business around three major geographies—we have a group that focuses on the Asian Pacific sector, a group that focuses on the North and
BREAKING DOWN TOP-LEVEL OBJECTIVES BY REGION AND BY SITE, CONTINUED

South America sector, and a group that focuses on the European sector. Each of these regions has ownership of their mission, vision, strategy, capabilities they need to succeed, and markets they’re targeting. They are taking growth objectives and translating them into how to deploy within a region. Given Solectron’s track record, these revenue objectives have been in the growth rates of 50% plus for our businesses around the world.

Then we are organized by site. We have a philosophy that every site in our company has its own strategy, with ownership for its results. This has been one of the most fundamental reasons that we’ve been so successful in our business. We have individual ownership for results people deliver at the site level. We expect our site managers to have complete ownership of their three-year strategy, and we expect them to develop a very detailed customer plan, a customer requirement document, and what capabilities and resources they need to succeed.

This is fundamental to our success, because we end up with a group of general managers at the site level that have ownership for their own plans. They believe in the plan. It isn’t a corporate plan— the corporate planning staff consists of only three people. We believe that the people who are going to deliver the plans must develop the plans. Our world is very dynamic and the plan that gets printed tomorrow will probably not be that useful three months from now. What’s more important is that everyone understands what it took to develop that plan and has the knowledge of the customer base.

Finally, we pull all our plans together to have an overall corporate plan.

SETTING TARGETS BY DEVELOPING THE ANNUAL OPERATING PLAN (AOP)

Once we have our three-year plan set, we move into the second phase of our planning process, which is to develop the annual operating plan (AOP). It is a set of targets that all sites will commit to for the coming year. The expectation is that when folks sign up for their plan as part of the annual operating plan, they will find a way to make it succeed in the coming year. If that means changing dramatically what they thought it would take to get there, they will do it. This is fundamental to the entrepreneurial spirit of our site managers running each of their sites.

The intent of the AOP is to fit within the envelope of our three-year plans. We set three-year objectives to stretch where we want to go, and then we fill the one-year plan that fits within that envelope and will get us to that three-year objective.

We also do Hoshin planning, which refers to an organizational alignment with the objective. It is a process that underlines our entire planning process—we take our president’s Hoshin and develop alignment throughout the organization to meet those objectives.

The intent of the Hoshin process is to develop specific tactics to meet our long-range objectives and achieve breakthrough. We go through a catchball process, where each layer in the organization communicates and shares information with the next layer up in the organization. This helps us make sure there is alignment with
CASE STUDY

Solectron Corporation, Malcolm Baldrige National Quality Award Winner, 1997

Setting targets by developing the annual operating plan (AOP), continued

the next level up in terms of the objectives. We can translate very high level objectives down to very specific actions that folks can take in the coming year, to make sure we meet our stretch three-year objectives.

As part of our Plan Do Check Act cycle, we make sure that we plan and execute well. Leadership reinforces that by making sure that we’re on target with financial and capability plans that we set. It doesn’t serve us very well to just meet next quarter’s financial objective if we’re not going to meet our long-range capability objectives. Therefore, we measure and monitor, which allows us a chance to adjust on the fly. Our business is dynamic, and in fact, we alter our plans quite dramatically every quarter, depending on our business needs.

Most importantly, we’re never satisfied with the process. Every year we take a look at the process and make sure it still fits our needs. At the end of every planning cycle, we sit down with the key folks who are involved in the process and make sure it still meets our objectives.

This has been an ongoing development for us. We have only had a formal planning process for about four years. Prior to that, it was a very ad hoc process, but it had the same objectives. In 1990 we developed a long-range plan target, which was five years from then and at the time we were a $200 million company. They set what they thought was an unbelievable goal for Solectron, to be a $1 billion company by 1995, and we shot way past that goal.

An overview of customer and market focus

Understanding customers and markets goes hand in hand with the planning process. We try to understand customers and markets on three broad levels: 1) the dynamics of the electronics market place; 2) the specific needs of our customer base, and; 3) what individual customers need. We want to be able to adjust our performance and execution to be successful with those customers.

Tracking and anticipating electronics production worldwide

We track the overall electronics production throughout the world for our electronic goods, which is our fundamental target market. The electronics industry is a $1 trillion industry, growing about 8% per year. Our target within that market is just over $500 billion.

We’re fortunate enough to be in the outsourcing business, which translates into 25% growth in our core business. Just to keep up with our competition, we need to grow our business at 25% per year. However, our objective is to increase our market share, year after year.

We then take a look at where goods are actually being manufactured. We break our planning down into regional planning processes. One of the fundamental bits of market knowledge that we pull together is to understand the global dynamics of the electronics industry. We anticipate a dramatic shift in production between now and the year 2000, where production moves out of the Japanese market and into other
Asian markets. We want to take advantage of that, and we're putting in place our plan to help our Japanese colleagues do manufacturing better, an unbelievable thought just 10 years ago.

From a market planning perspective, we look at the different sectors of electronics production and segment our market. We try to look at the relative size, and the relative growth of the different market sectors that we participate in. From that we develop our target market segmentation and understand the requirements it takes to succeed in those markets.

For example, we have such market sectors as PCs, mobile telecommunication, and networking products growing at very nice rates. Solectron has specifically developed a portfolio strategy to diversify into different market sectors, so that as one sector goes up, we can be balanced with another sector of the market. You might say that we've learned something from the mutual fund industry in terms of trying to balance our portfolio as we grow our business.

We need to understand our customer requirements, and we find that not every customer has the same requirements. However, as a service company, we need to develop custom solutions to meet the individual needs of our different customers.

To some customers, we may be focusing on fast time to market. For others the key is flexibility. Still others are looking for leading-edge technology. We need to understand the requirements for each of our customers so that we can position our service offering to be in the best place to meet their needs.

One way to do that is our customer focus team. For every customer, in every single location, we have a team that is aligned to serve nothing but the needs of a given customer. For example, we serve Hewlett-Packard in many locations around the world, so we have a Hewlett-Packard team at each of those locations. They are organized in the same relative proximity to each other, sharing the same information and dedicated to work on HP’s products. This team is deployed in the same fashion everywhere in the world where we operate.

Another important element of understanding our customers is the various technologies we deploy to be in synch with our customers. We use voice mail pagers, video teleconferencing, e-mail, the Web, and other means to be very responsive to our customers. We want to be prepared to meet their needs, 24 hours a day, seven days a week.

We also have an annual customer survey. We send out over 800 surveys to our customers, various people at different levels of the organization, and at different locations, to make sure we understand their needs. We use this process to feed into our long-range planning process, and it often helps drive major initiatives within the company. We’ve been building common processes as the backbone of our company, mainly because our customers pointed out this weakness. Rather than be afraid of
negative data, we took the data to energize the company and get everyone to rally around the need for common processes.

Our most fundamental process is the CSI, or Customer Satisfaction Index. This process has been benchmarked widely since we first won the Baldrige award in 1991, and it’s still in place in much the same way as it was then.

The CSI is a weekly feedback mechanism that tells us how we’re performing with our customers. It’s reinforced throughout the culture in our company. Every one of our sites has a weekly management meeting, where the results of our CSI for every customer are shared, so that we can get feedback on how we’re doing.

Figure 5 shows the score card that our customers give us, and it’s on a very aggressive scale. If the customer gives us a C, for example, we get zero points; an A gives us 100 points; and a D gives us a negative 100. If we have just a few dissatisfied customers, the score will drop off quite dramatically. Part of the process is that if we get a grade of B minus or below, we have to put in place a corrective action plan. We develop a root cause analysis and an action plan, to say why the problem occurred, what we can do to fix it, and when it’s going to happen.

For Solectron to be successful, we’ve had to believe that the customer comes first. It starts from our values, where “customer first” is the first of our seven beliefs. It’s embedded in our planning process where we have customer planning at every level of the process. Our organization is aligned by customer. We measure customer satisfaction relentlessly at a macro level on an annual basis, and on a weekly level with our CSI. And our reward systems are aligned with that—people are rewarded in their compensation plans based upon customer satisfaction.

Information & Analysis

Ken Ouchi—What we see and hear, how we analyze, and how we act, is profoundly impacted by what our information systems are doing for us. To get information that is useful, we need to find a process, identify those parameters that
Measuring processes to add value to stakeholders, continued

control that process, those that measure how well it performs, collect that data, and use that to manage our business.

What is important, and what should we measure? First we must look at the fundamentals of our business, and go back to our beliefs. Solectron believes that the customer always comes first, because without customers we wouldn't have a business. We also have respect for individuals. Every organization is really a collection of individuals—employees, customers, and suppliers.

We focus on quality, because that measures how well we execute. Supplier partnerships are very critical, for without suppliers, we don't have a business. Business ethics are critical to us, because business runs on trust.

The bottom line is that if we do these well, we give value to our stockholders; whether that refers to stockholders of a public company, the proprietor, employees, or communities.

Our beliefs are not profound, but they really define how we run the business. We impart upon our people a view of how to run a business. Based on that view, we can decide what we will measure.

Utilizing the Baldrige framework

The Baldrige framework has allowed us to take our basic beliefs of how businesses operate, and bring that into action. It's about how to look at the market environment, look for your opportunities, and apply these powerful tools to your business to form your business model. A second key part to this is process improvement. Without it, you won't know how to get better at being better.

Some measurements at Solectron

We have a set of measurements we've put in place at Solectron. One is customer first. We look at an overall evaluation of customer satisfaction. We look at customer returns, our market share, and the basic beliefs. Next we look at respect for the individual, employee satisfaction, absenteeism, lost time per employee, and our turnover rate. We look at quality, such as how good are our tests and measurements. We also look at manufacturing performance on delivery. Supplier partnerships are critical to us. We look at supplier quality, strategic suppliers, and how well we're using those. Business ethics reflect back to our customers, and how well they believe that we're doing, and our customer satisfaction index. We also focus on what we return back to the stockholder. We look at revenue, profit per share, return on assets, earnings per share, profit after tax, before tax, per employee. Finally, we look at our social responsibilities. Our communities are important to us, so we look at how well we comply and lead in things like environmental efforts, recycling, how involved we are with the community, and what kinds of things we're doing to contribute back.

Using information for process improvement

Going back to our business fundamentals, we must identify our beliefs, identify our business model, and from there decide which processes are critical for us to measure. Then we can put into place a very strong improvement process so that
Using information for process improvement, continued

we know how we can become better. That's really how we're able to survive in a very dynamic, rapidly changing environment. The question is not how fast can you move, but how well you can accelerate and change direction.

Core competency: identify, capture, and improve processes

Ken Ouchi—Walt Wilson, our Senior Vice President, once asked, “What is the core competency of Solectron? Is it our manufacturing capabilities? How well we handle technology? Is it our surface mount machines, and how well we’re able to now deploy that kind of technology?” The answer is that the core competency of any successful business, including ours, is to be able to identify, capture, and improve processes.

New product introduction process

We have some very complex sets of processes, but we have adopted a systematic way to go about doing business. Our new product introduction cycle reaches deeply into where our customers are doing their business, and well into our supply chain. It says that our processes should not just focus on those that are within our business, but in fact extend well into our customers’ and suppliers’ businesses (see Figure 6).

Seven-step quality improvement

Our seven-step quality improvement process represents the fundamentals that we teach to our employees. Just as we teach them the basic seven beliefs, we also teach them how to identify processes, form teams, bring these processes into effect, and more importantly, how to improve them.
CASE STUDY

Solectron Corporation, Malcolm Baldrige National Quality Award Winner, 1997

World wide materials management

Our world-wide materials system is another example of process management. Solectron is a very distributed company, in that there is really no central system, but a set of systems that cooperatively operates to bring together focus for our customer. Our world-wide materials system essentially brings this diverse set of information, focuses it, and allows us to act on it.

Supplier measurement and management

Supplier measurement and management is essential for us. There’s a tremendous amount of interaction with our suppliers, and it’s critical that we make that as smooth and risk-free as possible.

Process improvement is critical to growth

If you look at processes, you might ask yourself what’s in a manufacturing process? It’s very clear, as you’re assembling things, how things happen step by step. We can now capture that and bring that into a process.

Without a process, we cannot improve. Without a process, we cannot consistently and systematically grow. Some would say that the core competency of any successful business is the ability to identify, to capture, and improve processes.

Human Resources

Tom Morelli—Human Resources attempts to create alignment of our business strategies with our Solectron beliefs. Our beliefs are the framework of our policies that relate to people, and how we conduct our business. As an executive management team, each one of us has the responsibility to propagate Solectron’s soul and spirit in all of our existing and future sites. We must be the standard for corporate consistency, in all Human Resources practices and policies around the world.

Our goal is that each person in our organization is committed to adding value, to satisfying the customer, looking for continuous improvement and constant learning. We are committed to provide for the consistent and systematic creation of wealth to all of our stakeholders—customers, employees, suppliers, stockholders, and communities in which we live.

Our organization tries to maintain an excess of 40% growth year after year. We must have processes that are able to attract the right people. We must be able to develop and have processes to ascertain the needs for today and the future, so that each of us will be better equipped to satisfy the needs of our customers. We must also be able to retain that core talent, and develop an environment that continues to foster commitment and dedication. Each and every one of us has a responsibility for the continuation of the Solectron dream, and our quest for excellence. That means having a process where we can see how we are directly connected to the business.

Our potential market is very large, so as an organization, we have a great opportunity; it’s up to us as individuals to prepare for that. We want to maximize potential, which relies on the belief that each of us can stretch a little bit more.
Finally, we must have continuous learning and adaptation to change. The markets that we support are ever changing and evolving, and we must be equipped to meet that challenge.

We believe that no one has a job in Solectron—each of us runs a business. A material handler, whose responsibility is to ensure that appropriate kits are at the appropriate point on the assembly line at the right time, runs a business. Our technologists developing new and enhanced processes for manufacturability, each runs a business. That’s how we focus on satisfying our customer. We utilize our customer focus teams, and we have eight functional units that tie our capabilities to meet customer specifications.

We use the same manufacturing processes around the world, so that as we acquire new sites, we’re able to bring them into the Solectron family with more ease.

We strive for flexibility through cross training. We must be forever changing, cross training and constantly enhancing skills.

We also extend open communication to everyone, including executives. We have five monthly meetings to review the results of our annual operating plan. We can review the functional initiative progress on tasks and assignments that I’m working on. Specific locations are reviewed against targets, the future, quarter projection, and the celebration of achievements.

Our compensation philosophy ensures that each of us is running a business. That entrepreneurial instinct must drive the capability of our people to increase their personal wealth.

Variable pay is used as a basic incentive to enhance the achievement of all employees. All employees are on a variable pay scheme. We use our annual operating plan, and their specific objectives that are directly tied to that plan, as the way to increase an employee’s position and compensation.

There are programs on performance evaluation, development attainment, and merit administration. We do not run our business based on policies and procedures, but on guiding principles. We establish a template of how we will conduct our pay schemes, and each site, through their local market practices, takes those principles and weaves them into their program.

It is very important that we provide our employees with education, training, and development. We focus our attention on six core developmental areas:

1. Technical and operational
2. Technology and engineering
3. Management development and leadership
4. Personal and developmental training
Six areas for employee development, continued

5. Sales and customer service
6. Educational alliances and partnerships around the world.

We have the same requirements, or core programs, in all of our locations: workmanship standards, manufacturing training requirements, and skills training. Training is focused on management and employee development. Training is provided to ensure that quality processes are available to our customers no matter where they are.

We partner with universities throughout the geographic locations that we operate. We offer adult education through the community colleges and local high schools. We also act as business partners for organizations to bring people back to the work force.

Employee well-being, satisfaction, and community involvement

Our employees’ well-being and satisfaction is an area we focus on. We are committed to an environment where the health and safety of our employees in the communities in which we operate, is held in the highest regard. We're appreciated and respected for our activities in those areas. We continue to strive for better working conditions, better environments for our communities, better health and safety for our employees, and happier, more satisfied employees.

Solectron has established a global environmental policy that would supersede some local requirements of the land in which we're operating. We've partnered with regulatory agencies such as the air quality management district in California, the Clean Texas 2000 Program, and the National Environmental “Hibiscus Award,” that was granted to us for our work in Malaysia.

What makes us come to work? We have a true open door policy and that's not just because we have open landscapes in most of our facilities. Our operations around the world are situated very close to a large share of the population. Our employee opinion survey is focused on our belief system, and 80% of the questions that make up our employee opinion survey are derived from our seven beliefs. We take the results of that—turn over, promotion, absenteeism—and are able to analyze employee satisfaction in total. We also have roundtables, where executives, general managers and regional presidents are expected to meet with the president and his staff. Site general managers are expected to conduct roundtables on a monthly basis. What we learn from each roundtable is shared around the world, so that we can leverage best practices.

Business Results

Susan Wang—Our stakeholders are the customers, our employees, stockholders, suppliers, and the community that we serve. And it’s very important that we always maintain in our conduct, on a day-to-day basis, a very balanced approach, to ensure that the results are balanced.
Meeting and exceeding the demands of all stakeholders, continued

For our very first stakeholder, the customer group, we have been very focused to be sure that the customer always comes first, because without them, there is no business. We make sure that we deliver what they want, when they want it, and that they will be continuously satisfied with what we deliver to them.

One of the trademarks for Solectron is the use of the customer satisfaction index. We consistently measure the satisfaction level of our customers. We have had a very consistent satisfaction level around the 90% level since 1992. I must admit that this 90% level does not reach our internal goal that we set each year, and each year we try to raise the bar a bit, so there is still room for improvement.

However, the business has been growing in complexity, and in the face of that complexity, we continue to satisfy the customer. No matter how your business fares, and how it develops, you cannot give up on a goal, you still have to measure the transaction level of the customer to know how you're coping with the complexity that grows with any business.

Customers' awards are very important

We also keep track of the various awards given to us by our customers, which are actually more important than local or national quality awards. The Baldrige Criteria help us measure how we progress as a company, and it's important to measure the process by which we satisfy our customer. But the result is that we have satisfied customers who recognize us by giving us their own award. That is much more relevant to us, because in addition to just giving us the awards, our customers also give us recurring business.

Prior to our application for the Baldrige Award, we were getting some recognition. But since then, the pace and rate of awards from our customers has picked up. By using the Baldrige Criteria, we became much more consistent in collecting and quantifying measures, and we have helped our customers improve their measurement process to measure our progress. The total business process, and the total supply chain process, is sometimes measured and reflected in the number of awards that we've been receiving from our customers.

Quality products at lower prices in a highly competitive market

One way to measure the wealth we have created for our customer is by looking at how we deliver consistent products and service at consistently lower prices. In the high technology industry, price erosion is a given. Our companies are faced with ever decreasing average sales prices, and under these competitive pressures they need to be increasing productivity to be more competitive in delivery of products, and services.

We have been able to pass on price reductions to our customers by eliminating true cost, or non-value-added activities. We've been able to drop our gross margins, or average sales price to our customers, while maintaining our own operating performance at the operating margin levels. This represents what a quality company would have to do in order to ensure that customers benefit from process or quality improvement. By continually eliminating non-value-added activity, we contribute to
Quality products at lower prices, continued

The lowest total cost of ownership for our customers, and keep our customers competitive. Therefore, through the customers' success, Solectron is also successful.

Measuring the success of customers

This particular improvement to competitiveness has a dramatic impact on the success of our customers. Among the top 20 customers of Solectron in 1997, 14 of them have been among our top 20 in fiscal year 1996, and 10 of them have been with us since 1992. Some of these customers give us recurring business to recognize the fact that we are giving them improved quality delivery, and improved capability. Of course, their appreciation of our service and success efforts contributes to our success. At the same time, many of these customers are small emerging growth companies. Some of them are startups that haven't existed for more than five years. So, to have them stay among Solectron's top 20 for such a long period of time is a testament to their own growth.

How have these customers grown? The top 20 accounts have grown in revenue by 8.5 times from 1992 to 1996, and 11.5 times from 1992 to 1997. This shows us that the customers have been successful through the use of Solectron's services, to take advantage of the true partnership and share our success.

Customer criteria for being a qualified supplier

We must consistently exceed our customers' expectations and criteria for measurement of a qualified supplier. The criteria come from our customers, and can be put into four categories: Improve capabilities, reliability and dependability, flexibility, and responsiveness.

Such criteria are extremely important for our customers who participate in a time and cost sensitive market place. In each case, we understand that our customers' needs are very focused on these four main categories. We strive to maintain and improve all performance criteria to consistently exceed our customers' expectations.

One way we deliver improved capability, flexibility, responsiveness and reliability to our customer is by the introduction of a very focused and customized new product introduction process. Through this process, we contribute to lower cost to our customers for the entire product life cycle. Our customers' product cost decreases more rapidly with the use of Solectron's customized new product introduction program.

Part of their cost is permanently eliminated through the use of our customized design for manufacturability, or design for testability and reliability. It is tightly integrated with our customers' product design, to ensure that the customer's products come out in the market place at a lower cost level.

It also ensures that our customers bring their product to market more rapidly, shorten their time to market, and time to cost requirements. They have lower costs, improved time to market, and high velocity—important criteria that keep our customers competitive, and keep them coming back.
CASE STUDY

Solectron Corporation, Malcolm Baldridge National Quality Award Winner, 1997

Expanding job scope and quality for employees

For our second group of stakeholders, our employees, we also contribute to the consistent creation of wealth. This is done not only by creating more jobs, but also by creating meaningful jobs through our growth as an organization.

There's security in job growth—since the business continues to experience rapid growth, our employees don't have to worry too much about employment. They can see that the business is healthy, and continues to have very healthy prospects, and that the creation of jobs and of wealth will continue for quite some time. That security allows them to perform even better because they can focus their efforts on satisfying the rest of the company's stakeholders.

The number of jobs we've created around the world contributes to expansion of job scopes, not only in numbers, but in quality. We have given a significant number of promotions to our employees—in 1992 we had 110, in 1993 it was 445, in 1994 it was 852, in 1995 it was 1841. The promotions mean that the employees have expanded responsibility, they have opportunity for growth and learning, and they're able to apply their experience to pursue broader and deeper experiences. This enables our employees to gain valuable experience that they wouldn't otherwise be gaining in a company that's stagnant, that's concerned about preserving jobs rather than growing the people.

Building growth and opportunity for stockholders

The third group of stakeholders for Solectron is the stockholder. Our stockholder would see opportunity and growth in their investment by making sure that the companies that they invest in have an opportunity to grow earnings. This opportunity to grow earnings has to start with the ability to grow revenue.

Solectron has consistently grown revenue and earnings. From 1991 to 1997, with our average annual revenue growth rate of 47%, and a compound annual revenue growth rate of 55%, our net income has grown at a compound annual growth rate of more than 60%. While we were managing rapid growth and increased level of complexities, we have been growing earnings and building wealth for our stockholder. We have been growing their return on investment through the continued and consistent growth.

We have also been growing our equity base, and measuring the return on the investment base, the return on equity, to ensure that everything we do consistently focuses on the ability to maintain and continuously improve a level of return to the stockholders.

As we grew our company, we did raise some equity, but at the same time, we had been improving on our returns management and the return on equity. Our goal is not quite met, but we will continuously focus on meeting our 20% return on equity goal. As our overall business process has been improved, we have been able to find ways to support greater growth, with internally generated cash.

The ultimate measure for stockholders is stock price. An investment in Solectron has paid off many times more than an investment in a technology index.
Building growth and opportunity for stockholders, continued

or the S&P index might have done. Had you invested in Solectron, at the initial public offering price of $.75 in 1989, you would have a closing price of something like 44 and five-eighths, a more than 55 times increase in your investment. The stockholders in this case definitely saw significant increase in wealth and in contribution to their investment goals.

The growth of Solectron contributes to the growth of our suppliers as well. As we grew our revenue, we would be procuring more from our suppliers, and the expanded expenditures that we apply to our suppliers contribute to their growth as well.

Our contribution to our suppliers also accrued benefits to our customers. By converting a lot of supply-based management to Solectron, our customers benefit while our suppliers also grow.

In earlier days we did not have full control of the supply base. We were not able to manage our supply base very well, and our customers gave us a great part of the material that we handled, and we just assembled the components they gave us. But as our capabilities improved, we were able to take on the challenge of managing the supply base, and sourcing components by ourselves. Through that, we were able to benefit our suppliers, and grow the quantity of materials that we procure from them, and therefore contribute to the suppliers' growth. The customers benefit, because through this integration of management by Solectron, we were able to help our customers leverage our purchases, and it improved cost, flexibility, on-time delivery, and reliability.

We made sure that the suppliers that we managed were measured on their performance. By collecting the order quantities, we were able to give our customers the cost reduction through order quantity. We could also help our suppliers understand where the orders were coming from and how much to anticipate in terms of order flow. Our suppliers were able to plan their capacity better and therefore had much better performance in delivery, on-time delivery, flexibility, and responsiveness. This in turn reduces lead-time and improves delivery to our customers.

All this contributes to the suppliers' well being by allowing them to get larger orders, better terms and conditions, better information flow, and a better business process. Their success then results in better pricing for us, which in turn is better pricing for our customers. There is a complete supply chain advantage in this aspect of improved performance.

Passing success onto suppliers

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Commitment to serving communities

Finally, the communities in which we operate have benefited by contributions from Solectron's workforce. Most of our programs around the world have an education focus. Solectron sponsors many education processes because we believe in continuous learning, and we draw a lot from our community as we expand our workforce. We must ensure that the community benefits from what we gain from
Commitment to serving communities, continued

In this way, the circle is complete. We are able to continuously go back into the community to get a better workforce to continuously serve our customers, and build a business. Then we make sure that stakeholders would be getting their share of consistent wealth creation. The Baldrige Criteria, in our opinion, are a complete measure of the total company. The total quality approach is something that we can continue to ensure that the total performance of the company is always focused on a total stakeholder approach and a total quality approach.

Lessons learned

Walt Wilson—There are some major lessons to be learned from this experience, starting from the time we began the Baldrige process in 1989.

At that time, we had 1500 employees at one site in Silicon Valley. We had a manufacturing quality system that had many attributes. Those attributes came from our customers, and we were tremendously customer-driven. Much of that occurred on the factory floor, and came as a result of input from customers. In addition to that, there were some great concepts coming out of Japan, and Solectron was a very good student of some of the Japanese practices.

I observed at that point of time that many other large companies were picking up on these techniques, but would later abandon them. They found that the concepts would not culturally fit into the American workplace. Solectron, however, was very successful at adapting those to our business.

These programs were not integrated to any great extent. It was a little bit here, and a little bit there, and that was viewed to be a problem. One important factor was that we had a customer satisfaction measurement that had been existence since 1985.

In 1989, we first heard of the Malcolm Baldrige Award. That was after Motorola and others won, and it really piqued our interest. We got the criteria, looked at the questions, and we saw that if one could answer all those questions, one would have a very comprehensive view of their business.

We had a narrow belief that our business was going to grow at about 25% a year. That’s what the market projections were. We felt that the Baldrige process would be a superb way to integrate our business and come to a common language. It would be a unifying principle that we would organize around. In February of that year, we decided to apply for the Award. The senior management at Solectron was, and still is, very committed to the concept of the Baldrige Award.

In the course of six weeks, we applied. Unfortunately, we ran out of time, to the extent that we had to rush to the San Francisco airport to postmark the envelope by the deadline hour. The San Francisco airport had the only post office we could find that was open 24 hours a day.
1989: Applying for the Baldrige for the first time, continued

After we dropped off the envelope, we realized that we had spelled Baldrige wrong. Throughout the document, we added an additional “d” toward the end of the word. That was a major lesson—the Baldrige is about continuous improvement, so we had one improvement that we could handle for our next year’s application, getting Baldrige spelled correctly.

Understanding the first assessment report

After we got our comprehensive report back, some 50 pages, we understood that the award is not about perfection. In the course of those 50 pages, nobody ever mentioned that we’d spelled Baldrige wrong. We also realized that we didn’t understand some of the questions—we took a very literal approach without understanding the depth of those questions, and how they interrelated to business processes. We also found that we had numerous gaps within the criteria framework. There were comments about our HR policies, training, and we weren’t benchmarking at that point. However, we were strong in the leadership and the customer satisfaction categories.

Reapplying in 1990

In 1990, we applied again. Since we had grown much over the year, we had to start evaluating other locations. We began benchmarking with Xerox, Hewlett Packard, IBM, AT&T, and others. We found that this was a tremendous way to learn about other companies’ best practices, and integrate those into our business. It was a natural way to introduce our company to some new business.

We had no major functional defects in terms of areas that were lacking. But we had some certain areas for improvement. Once again, we just went out and did it. We didn’t win the award in 1990, so we applied again.

Changing criteria in 1991, winning the award for the first time

The growth continued, and we found that the language of Baldrige allowed us to take on additional sites and transfer our processes and culture.

The Baldrige Criteria started to change in 1991. We learned that the Baldrige process and the results following that process are about improving your organization and business excellence, not about quality.

We received our first site visit in 1991, and that was a very motivating, stimulating process. It helped us realize that when a group comes in from the outside to determine whether or not you’re the best in the world, it is a very energizing activity for everyone. As a management team, we had been preaching, teaching, educating, and training for so many years, but often we didn’t know what was in the hearts of our employees. The site visit started an explosion of knowledge, interest, and excitement. It seemed that every employee and associate was willing to pour out their hearts as to what it meant to be in a quality company. And fortunately, after that first visit, we were named the large company manufacturing winner in 1991.
ISO certification as a complement to Baldrige

After winning in 1991, we looked at ISO certification. In the course of five years, we've qualified all our plants, except for those that are very new to our business. However, we have learned that ISO certification is not Baldrige. They're two very separate things that yield different results. We accomplished much by the Baldrige process, but we also learned a lot and accomplished much via the ISO process.

The ISO is about conformance to processes, and having documentation systems that are complete and operative. It really doesn't speak to business results to any great extent, nor business excellence. We quickly saw that there could be a nice integration between ISO and Baldrige for our organization.

To keep the Baldrige process alive, we adopted the Solectron Total Quality Excellence Award program, where we would do internal Baldrige exams and write applications on a yearly basis. We would also do exams every 18 months. In this process, the senior management and site managers were trained in the Baldrige examination criteria, just like the Baldrige Examiners. Then we sent teams out to each site to do a full evaluation, including the consensus of visits, and a feedback report.

We then continued to test ourselves by applying to all of the state and national awards that we could. This was an effort to motivate the work force, test what we've been preaching, and stay vital. One great lesson was learning the value in having external organizations come in and establish the viability of your programs.

Along the way, we received several regional quality awards and a number of industry awards, including three years on IndustryWeek's list of the World's 100 Best Managed Companies.

Continuing growth presents ever-increasing challenges

Since 1977, when we began to utilize teamwork, we have grown our company while making great strides with continuous improvement (see Figure 7). Our growth continues as we move from 2000 people in 1991 to over 25,000 people in 1998. The Baldrige Criteria have acted as a system for replicating ourselves. We have been able to reproduce ourselves, throughout the world, across many cultures, taking advantage of the ISO certification as a complement to Baldrige.

Figure 7. Continuous Improvement in Work Design
Continuing growth presents ever-increasing challenges, continued

people from many backgrounds, and bring them into the Solectron family very fast.

In 1997 we received multiple site visits, even though some sites had only been with us for months. The Examiners saw the language, soul, and spirit embodied in all of our sites.

We've used the Baldrige Criteria internal assessment, and external assessment, to drive a common language, measurements, continuous learning on a closed loop basis, and replicate ourselves throughout the world.

As time goes on, we will need to learn faster than we have in the past. Some people may say they will apply for the Baldrige when they're ready, or they feel better about themselves. But I see no down side to applying at any time. This is a journey, and it's a continuous process of learning. Once you step out, apply at the state level, or the national level, you'll find out where you are. Don't get ready and then apply—in the process of doing that you're going to lose a lot of time and limit your results. Just do it!

Ko Nishimura joined Solectron in 1988 as chief operating officer at the company's facilities in San Jose, California. In 1990, he was named president and chief operating officer. He assumed the position of president and chief executive officer in 1992 and was elected chairman of the board in 1996. He has led the transformation of Solectron from a regional entity to an internationally renowned leader in the electronics design and manufacturing services industry. Nishimura holds a doctorate in materials science and engineering from Stanford University and master's and bachelor's degrees in electrical engineering from San Jose State University.

Mark Holman is responsible for the world wide marketing and business development activity for Solectron, a position he has held since joining the company in 1994. In this capacity he leads the activities for the strategic planning process, market and customer analysis, as well as merger and acquisition activity. Holman has a bachelor's degree in electrical engineering from GMI Engineering and Management Institute and an MBA from the University of Michigan.

Ken Ouchi joined Solectron in 1992, and is responsible for the strategy and implementation of information technologies and systems for Solectron's world wide locations. Ouchi earned his doctorate degree in electrical engineering/computer science from Stanford University. He received a master of science degree in electrical engineering from Santa Clara University and holds a bachelor of science degree in electrical engineering from the University of California at Berkeley.

Tom Morelli joined Solectron as Vice President of Human Resources in 1994. He manages Solectron's global development and implementation of human resources practices and programs in the rapidly growing manufacturing services business. Since 1994 Solectron's employee population has grown from 6,000 to over 25,000 and 25 locations around the world. Morelli holds a bachelor of science degree in industrial relations and
Susan Wang joined Solectron in 1984 as the director of finance. She was promoted to vice president of finance and chief financial officer in 1986 and has served as senior vice president and chief financial officer since 1990. She assumed the role of Secretary for the Corporation in 1996. Wang holds a bachelor of arts degree in accounting from the University of Texas, an MBA from the University of Connecticut and is a certified public accountant.

Walt Wilson joined Solectron in 1989 as vice president of operations. From 1993 to 1996, Wilson served as president of Solectron California Corporation. He currently directs all activities for Solectron Corporation's subsidiaries in California, Georgia, Mexico, Massachusetts, North Carolina, South Carolina, Texas, Washington, and Brazil. Wilson holds bachelor of science degrees in electrical engineering and applied mathematics from California State Polytechnic University, and an MBA from Santa Clara University.
In researching the book Customer-Centered Growth, Diane Hessan and I talked to 200 organization leaders on six continents. One of the interview questions we asked was, “In a word, describe your culture. How are people feeling?” The response that we heard most often was “fear.” It is said that 85 percent of the employees in the United States are reluctant to offer a new suggestion or an innovation—they don’t want to get their heads up where they can be seen.

In the past decade many organizations have been highly focused on improving processes—on quality, reengineering, and process management. Because organizational excellence is the product of both processes and people, we can gain a lot of leverage by turning our efforts to the human side.

This article is about how to free the spirit of the individual, so that when people come to work—all parts of them come to work. Not just their hands or their head, but also their heart, spirit, and soul—whatever we call that other intangible piece. When all these pieces are in place, an unbeatable energy is created that can propel the organization into greatness.

First, what is spirit? I cannot define it for you because it is unique to every individual. But you can define it for yourself by trying this simple exercise. Think of a time when you were completely engaged in some kind of endeavor. It doesn’t have to be in business—it could be in a service organization, a sports team, the scouts, church or others. You were involved—head, heart, hands, spirit, soul. When I ask audiences how they felt at these times they say words like “happy,” “energized,” “excited,” “focused,” and “productive.”

How did you feel? You might have felt similar feelings. Most likely time moved very fast, yet you were so absorbed that it sometimes felt almost timeless—with these words, you’ve just defined spirit from your own personal experience.

How can we as leaders create an environment where this kind of involvement happens? The following “six ways of being” is my approach to respiriting the workforce. These ideas are based on thirty-two years in business working with organizations all over the world and my own personal experiences. I had thought about using the word “principle,” but discarded it as over-used and authoritarian. I offer these six ways of being not as absolutes or truths but as approaches for you to try for yourself and if they work for you, to consider sharing with the people in your organization. Though I will discuss the leadership aspect of respiriting the workforce, these ideas are not only for leaders. They are for anyone who works.
1. Be home

The first way of being is be home. We often think of home as a location, as a physical place—it's where we live. We leave home, we go to work, then we go home again. But when I say, “be home,” I'm not talking about a geographic location. I'm talking about a place within you. It's the locus from which you can face both business challenges and the other issues in your life while being grounded and centered. It is where we are when we are in “the zone” or in “the flow.” When people are upset and we suggest they “count to ten,” we are inviting them to take a moment to find this inner place. It is from there that we can face the world with clarity and our feet solidly on the ground. An excellent way to find the home within is to learn how to find your center, to be present, and to be detached from outcomes.

Become centered

Your center is both a physical place, your body's center of gravity, and the balance and energy that comes from reestablishing the mind's connection with the body. If you practice meditation you know that among other techniques, centering can be accomplished through the simple technique of slow, deep breathing.

Be present

Today’s performance has to be achieved today. It can’t be achieved yesterday, or tomorrow. Yet it is astonishing how much of life we spend in the past or future—everywhere but the present. For example, in golf one of the keys to success is putting. In fact, most of the strokes by amateurs are made on the putting green. Let’s replay what might run through a typical golfer’s mind during a friendly competition on a Saturday morning...

Okay, here I am, on the 16th green. Let’s see. This is a about a six-foot putt. If I make this, I get a par. If I get a par, I’ll probably win the hole for my team. And gee, it’s going to put us up by two, so we’ve got a good shot at winning the whole match. Yeah!

Wait a minute. Man, a six-footer— it’s probably going to break to the right. Back on the eighth hole, I had a putt just like this, and didn’t hit it hard enough, and it died at the hole, so I’ve got to stroke it firmly. Putting isn’t really the strong part of my game...

Our golfer steps up and strokes the putt.... . And misses it. Why? Because all the emphasis was in the future, focusing on about what was going to happen. Or it was in the past, reliving the mistake on the eighth hole. Our golfer was everywhere but the present. All too often, like the golfer, we get all caught up in the past and the future and block our capacity and ability to be in the present— the place where true achievement occurs.

Detach from outcomes

Part of being home is detaching from outcomes. This is particularly difficult for managers and executives because we know how important metrics are—and they are important. But we've gone a little measurement crazy. We have “key result areas,” “goals,” “sub-goals,” and “tracking mechanisms.” The problem here is that when
Detach from outcomes, continued

you continually focus on how far you are from achieving your goal, you take yourself out of the present and put yourself into the future. You are more worried about what isn't happening than doing what you must do to create the result you want.

A study of Olympic athletes found that the more the athlete is compulsive about focusing on winning the Gold Medal, the less likely he/she is able to be in the state of flow that will enable him or her to do that. Tara Lapinsky and Michele Kwan recently competed for the Olympic Gold Medal in figure skating. All expectations were on Michele Kwan to win—she is an extraordinary skater. And she skated beautifully but cautiously. I suspect that those expectations were such a heavy load for her they took her into the future and consequently she skated not to lose, rather than to win. On the other hand, Tara said of her victory: “I went to the Olympics and did what you're supposed to do at the Olympics. You're supposed to have fun.” You could see the difference: the focus on the fun (being present), versus the focus on the Gold Medal (the outcome).

We manage most of our for-profit organizations by profitability and earnings per share. But consider for a moment that earnings per share and profitability are really lagging indicators. By the time we calculate them the game is over. When former Ford Chairman Donald Peterson said, “I wouldn’t play a very important tennis match with one eye on the score board,” he was referring to detaching from outcomes and being present by paying attention to each stroke in the here and now.

Not focusing on results is counterintuitive to most of us. We grew up with the idea of keeping all our energy aimed at the end we seek, and the more we focus on these results the more likely we are to achieve them. While it sounds reasonable, it’s not true. Our research on leadership reveals two interesting phenomena: 1) If you don’t focus on results at all and you do get them, it’s an accident; 2) If you are compulsive about results, you’re not likely to achieve them, because like Michele Kwan’s situation, you’re shifting your attention out of the present and into the future.

For example, your sales representative makes a sales call: she is worried about making quota, and getting an order during that call will help. Instead of being in the customer’s office, totally focused on creating value for the person in that moment, she is self-absorbed with her need to get an order and therefore is most likely to leave the customer’s office empty handed.

Appropriate emphasis on results can stimulate high levels of performance. Overemphasis, however, can create pressure that is dysfunctional or stress that is debilitating.

2. Follow your passion

We can all create passion for the work we do, or find work that we are passionate about. Richard Edler, who wrote the book If I Knew Then What I Know Now, asked hundreds of senior executives and leaders in various organizations one question, “What do you know now that you wish someone had told you 25 years ago?”
Follow your passion, continued

He found that the number one issue for these CEOs was that they didn’t follow their dream. Typically they would say, “I may be successful by any outward standard, I have two houses, I’ve got a yacht, I’ve got a beautiful family. But I sold out on my dream.”

A person who followed his dream was Ray Kroc, the founder of McDonald’s. A long time employee once said about Kroc: “When Ray talked about McDonald’s he could touch people, move them. When he talked about the bun and how you could toast it, you could see the bun. By the time he got through talking about buns, you were hungry.” This man was passionate about something as mundane as hamburgers and buns—and look what he did.

Everyone can be passionate about their work

Martin Luther King once said: “If you are called to be a street sweeper, sweep the streets even as Michaelangelo painted, Beethoven composed music, or Shakespeare wrote poetry. Sweep the streets so well that all the hosts of heaven and earth will pause and say, here lived a great sweeper, who did his job well.”

When you start thinking about what you’re passionate about, you begin discriminating about what’s important to you in your life and discovering your personal values. This leads to the question, “What is my life’s purpose?” Though not everybody has to have a life’s purpose, I do. When I discovered mine at the age of 55—my whole life made sense. The question that triggered me, and I offer to you is “to what do I consecrate my life?”

3. Create your own reality

There are events that happen in life that you have no control over—a flat tire, an unexpected illness, rain on a picnic. While it may be helpful to express the negative emotions that these events may cause, it doesn’t make sense to become a victim by dwelling on them. We actually have choice in how we feel about the problems life puts in our path.

When he was younger, Ted Hunter raced motorcycles, and dreamed about a professional career as a racer. Then he had an accident and was blinded. In a later interview he said, “I had a dream and when [the accident] happened I had to think up new dreams. I had a moment of despair.” To which the interviewer said, “A moment?” “Yes, about 10 minutes. Because I realized that for ages and ages people have been blind, and there was going to be something good for me in this.”

Ted Hunter created his own reality around a potentially devastating event in his life. Rather than becoming a victim and stewing about what might have been, he started working with computers, an interest at which he excelled. Ultimately he created a product for blind people called JAWS, which enables the blind to translate the written word from a computer to a form that they can read. Federal Express installed JAWS to enable blind employees to use their systems to track customer packages. Because of Ted’s “tragedy,” life has been significantly enhanced not only for himself but also for thousands of sightless people.
Interpret the events of your life in ways that serve you

Here is a simple exercise I’ve learned from Betty Sue Flowers, a professor of English at the University of Texas. If you were to describe yourself as a hero, using only the facts of your life, whichever facts you choose, what would you say? How would you describe your life as a hero to someone? Next, using only the facts of your life, describe your life as a victim to someone. And third, using only the facts of your life, whichever facts you choose, describe your life as a learner to someone. Your listener will hear three very plausible, fact-based stories of your life. Which one is true? They’re all true, of course. What is the story you have made up about your life? What can you do to interpret the events of your life in ways that serve you rather than keep you down.

4. Get out of your own way!

Most of the problems we encounter in our journey towards whatever vision we have set for ourselves are self-imposed—most of them. Some of them are real; there’s no doubt about that. But the problems that are self-imposed are very hard to see. Look at the contents of each of the triangles in Figure 1: Bird in the hand, once in a lifetime, best of the bunch. That’s actually not what’s there. What is different? Double words. If you really look closely it’s “bird in the hand,” “once in a lifetime,” “best of the bunch.” The reason this graphic is included is to point out that we are often blinded by the routines we get into. We’ve been trained to read in phrases, which is why we don’t see the double words right away. Similarly, often we don’t see the old patterns in our lives that stop us.

5. Declare your interdependence

The world is becoming so much smaller. Boundaries are falling and liaisons, partnerships, and outsourcings are increasing. Today the same organization can be your customer, your supplier, and your competitor all at once. We have become extraordinarily interdependent as our economies roll up into trading blocks like NAFTA, Mercosur, and the European Union. If it works for you and you are able to go it alone, do so. But it’s usually a lot easier to achieve what you want with the support of people around you. If this is true for you consider declaring your interdependence organizationally and individually. You may find life goes much easier if you do.

Have a support network of angels, dream keepers, mentors...

Luciano De Crescenzo said, “We are all angels with only one wing, we can only fly while embracing another.” Who are your angels? There are a number of angels in my life. I have a dream keeper who understands my dreams and my vision for myself. When I become discouraged or forget, this person very gently reminds...
Have a support network of angels, continued

me of my dream. My strategist is the person who helps me figure out, day to day, how I can get from here to there, what the options are, the best way to do it. I also have a “butt kicker.” This is the person who told me in 1990 to stop talking and start writing. As a result, my first book was created. My cheerleader is someone who thinks anything I do is the best thing in the world— and I love to bask in her unremitting stream of positive feedback. I even have a hugger who gives me both physical and emotional hugs. A yoda is somebody who’s already been there, a master teacher. This is my life sensei—a person from whom I can experience in-depth learning. My yoda changes depending on where I’m heading in my life and what I need to become.

When I identified these angels I realized that every one of them is also within me. That’s how I can recognize them. And what they really do is activate this knowing within me.

Make a list of the angels in your life. Who are the people around you who you let have influence? Are they supporting you? If they’re not helping you, why are they there? How can your angels give you the support you actually need?

6. Be yourself

Examine the words in this phrase— be your-self. The word “your” is possessive. What is being possessed or owned is self, or you. It is about owning you in your current state of being. Thus be yourself means owning you the way you are. Not the way you want to be, but the way you are. Some of the ways to be yourself include: having compassion for yourself, speaking your truth, and making your work a masterpiece.

Have compassion for yourself

I was playing doubles in tennis a while ago. The player across the net from me was having a horrible time. He was a good tennis player, but he was just having a bad day. He lost his temper, threw his racket, and he was continually berating himself with such statements as, “you idiot!” or “you dummy!” or “why did you ever take up this game?” It was a little embarrassing for all of us. Whether you play tennis or not, what would you do if your doubles partner talked to you that way? You would probably wrap your racket around his neck, or at least walk off the court. Isn’t it ironic that we won’t talk to anybody else like that, but somehow we give ourselves permission to talk to ourselves this way? For many of us this example is just the tip of the iceberg as so often we have no compassion for ourselves as we verbally take ourselves to the woodshed. Someone inside us is listening to these rantings... and it hurts us. Have compassion.

Speak your truth

Being yourself also means speaking your truth. The dialogue process has grown in popularity in business because it is a way for us to tell our truth in organizations and be heard. Learn to speak your truth, not like it’s the only truth, but like it’s the truth as you see it at this moment in time. Trouble and resistance come when we think our truth is actually right, and even worse when we are deluded into thinking it is the only truth. That is why one of the important aspects of dialogue is to listen.
to others with the intention of learning how to modify your point of view rather than defend and reassert it.

To be yourself is to make your work a masterpiece. Barbara Glance, a writer and consultant, gave a talk to the employees of a supermarket about making your work a masterpiece and putting your signature on it. Johnny, who is a bagger with Down Syndrome, heard her and took what she said to heart. He told his father that he'd like to print up little inspirational sayings, if he would teach him how to find them in the computer. Every night he'd go home from work and find a new inspirational saying and print a number of them. The next day he'd drop them into the grocery bags of customers he was helping check out. When they got home and unpacked their groceries, they would find the gift of this little inspirational saying.

About a month after Barbara gave her talk, the store manager told her of his most extraordinary experience. To paraphrase, he said, “I came into the store yesterday and saw all the customers lined up at one check-out line. I went nuts because our store cares about service, and good service is about customers not having to wait in line. So, I ran around apologizing to the customers, frantically opening more lines. And our customers said, ‘No, no, no—don't apologize. This is Johnny's line and we're just waiting for our little saying.'” "...How beautiful!

What happened next is that the butcher who liked Snoopy cartoons went out and bought a few thousand Snoopy stickers with his own money. Now when customers purchase meat, there's little Snoopy smiling up at them from the paper wrapping. And the people in the floral department who used to throw away the flowers with broken stems, now walk through the aisles until they find a little girl or an elderly woman, and give her the flower. Johnny, by being himself, by putting his signature on his work, inspired, influenced, and encouraged others to do the same.

If you were to ask an assemblage of your employees to “raise your hand if you are a genius,” how many hands would go up? Most likely you would see one or two hands raised. The point here is that every hand should shoot into the air because everyone of your employees is a genius at something. We all have something unique, some outstanding quality, that is very special. It is our job as leaders to discover the genius in each employee and to create an environment in which everyone can say, “Yes, I am a genius.” This is the beauty of true leadership—the opportunity to find, encourage, and promote these capabilities and talents.

Being an effective leader today is more demanding than ever. The “I-talk-you-listen,” “I-decide-you-do” style simply no longer works. Rather, today's leaders have to be able to balance opposites that seem like contradictions. He/she must simultaneously be able to:

• Give direction and empower
• Focus on the short term and the long term
• Spend and save
A leader’s job is to find everyone’s unique talents, continued

- Be tough and compassionate
- Demand high levels of performance and care about the richness of people's lives.

This flexibility requires a balanced, integrated leader who can live in the center of the opposites and move to the extremes as the situation demands.

Happily these leaders are beginning to emerge.

When Skip Lafauve was President of Saturn, I interviewed him while creating a Fortune Magazine video seminar and found that Saturn really is a “different kind of company.” When I asked him what was his job was, he answered, “That’s easy, my job is to create the kind of environment where individual excellence can emerge.”

When Charley Eitel took over Interface, the world’s largest maker of industrial tile, the company wasn’t doing well. He said that when he interviewed employees, “I could see the pain in their eyes as I talked to them.” Interface had several big sales meetings scheduled where they were going to do a lot of rah-rah stuff. Instead, he held a company meeting. He hired a family therapist to talk to them about creating balance in their lives. Then he hired that same family therapist part-time for any employee to call on a confidential basis with any issue or problem they had. The idea was less to receive therapy and more to have someone to talk to, someone to be an advisor.

Charley has doubled the volume of the company from $600 million to over $1 billion in sales and improved earnings by even more—a extraordinary turnaround. And he did it without layoffs. He stated, “Anybody who takes over a company that is struggling and fires a bunch of people,” I’ll use his phrase—it’s a technical phrase, “is chicken s---.” What is his system for leading?

- Pick good people,
- Help them create their own vision,
- Help them set priorities,
- Support them,
- Help them achieve their own greatness.

Look at those first words, pick, help, help, support, help. He is an extraordinary, successful, impressive business leader who is racking up enviable numbers when it comes to the financial side of his business. Where he puts his emphasis, however, is on the people side.

Herb Kelleher, CEO of Southwest Airlines, is a very impressive guy who loves people and has fun with them. On Boss’s Day some years ago the 16,000 employees of Southwest Airlines made a tribute to Herb Kelleher. They said this:

For remembering every one of our names. For supporting the Ronald McDonald house. For helping load baggage on Thanksgiving. For giving everyone a kiss, and we mean everyone. For listening. For running the only profitable major airline. For singing at our holiday party. For singing only once a year. For letting us wear shorts and sneakers to
A new type of leader, continued

work. For golfing at the Love Classic with only one club. For out-talking Sam Donaldson. For riding your Harley Davidson into Southwest Headquarters. For being a friend, not just a boss. Happy Boss's Day from each of your 16,000 employees.

What a tribute to a leader! What's really magnificent about this tribute is the way he received it. Those 16,000 employees chipped-in their own money and bought a $60,000 full-page advertisement in USA Today. And on boss's day when Herb Kelleher opened the paper, that's what he saw.

That's the kind of leaders who will be successful in the new millennium. Those with the sensitivity and assertiveness who will create the kind of environment where we can all be the geniuses we really are. They are the ones who build high spirited workforces by creating the kind of environment where they model and everyone can fully experience the six ways of being described above.

Author information

Richard Whiteley is Vice Chairman of the Forum Corporation, a training and consulting firm located in Boston, that he helped found in 1971. Forum specializes in helping organizations become customer centered. He has spoken to business audiences around the world and is the author of two award-winning best-selling books, The Customer-Driven Company (1991) and Customer-Centered Growth (1996). He is currently working on a book called ReSpiriting the WorkForce. He graduated from Wesleyan University, served three years in the US Navy, and received his M.B.A. in Marketing and Organizational Behavior from Harvard Business School.
America At Our Best: Restoring Trust in Government

Tina Sung, Director, Federal Quality Consulting Group, Washington, DC

Introduction

I represent Vice President Gore's National Partnership for Reinventing Government (NPR), which is an effort to change government, on a very large scale, using quality principles.

It takes six miles for an oil supertanker to stop and make a turn, mainly because it requires such a large amount of time to redirect the inertia of the ship. It's the same with any kind of large scale change. We have been working at this since the Vice President launched the effort in April of 1993. I can now say that the ship of state, our federal government, has actually made that turn.

Some of our initiatives have saved taxpayers $137 billion. Federal employment numbers are down by 350,000, to the lowest level in thirty years. Also, for the first time in 35 years, we are seeing evidence that public confidence in government is on the rise again.1

Now in our sixth year, we have begun to realize our message of restoring trust in government, and our vision for the future is “America at Our Best.”

I want to give you a brief history of this initiative, because it has been going on for five years. I will tell you about new directions, how we're going to fine tune the direction of this supertanker. I'll also discuss the leadership issues, particularly Vice President Gore as the leader of this effort. Finally, I'll tell you about some of the successes and the challenges of creating change in an organization with 1.9 million employees.

Brief history of the National Partnership for Reinventing Government

We began this initiative back in 1993, when President Bill Clinton said, “We intend to redesign, reinvent, and reinvigorate the entire national government.” The president had a background in this from his days as governor of Arkansas. He knew about quality principles from his contact with Eastman Chemical, a Malcolm Baldrige National Quality Award winner.

I was with the Federal Quality Institute, and was asked to join the NPR's task force as part of an outreach team. In this role, we reached out and listened to businesses, academia, citizens, unions, employees and special interest groups—we wanted to obtain their input on how to make government work better and cost less. We also put together a summit meeting with Vice President Gore, Dr. Joseph Juran, Dr. Meg Wheatley, Dr. Peter Senge, top executives from several Baldrige Award winners.
Major deficits in trust, performance, and the budget

Why did we even undertake this journey? The reasons are very simple. Back in 1993, we were facing major deficits in trust, performance, and the budget.

America’s confidence in our government reached a high of 75% during President John F. Kennedy’s administration—that is, 75% of the public had reasonable trust in the federal government. By 1993, that number had plummeted to a low of 17%. Fortunately, at the beginning of this year, the Pew Research Center conducted another Trust in Government Study, and the conclusion was that public trust in government is now up to 33%. We still have a long way to go, but the indicators are very positive and they are improving.2

The second deficit is a performance deficit. It is refreshing to see that this administration understands that the workers are not all to blame for the problems. They like to say that the government was stuck in an industrial age when the rest of the country was moving to an information age. Therefore, good federal workers were trapped in bad, old, bureaucratic systems. That attitude fits in with the quality principle that you have to work on the system first, so that the employees have a clearer understanding of what they are working on.

The third deficit had to do with our budget. In 1993 our budget deficit was very high. Then we had a major drive toward balancing the federal budget, which had dramatic implications. On average, the balanced budget drive was to cut domestic agency spending by 23% a year. We are feeling the market force of having significantly less revenue to run our business.

Launching this initiative with four guiding principles

When we first began our quality initiative, we established four guiding principles to help us reinvent government:

1. put our customers first
2. empower our employees
3. cut red tape and improve systems
4. get back to basics by deciding what to keep, and what to cut.

Each annual report has reflected major milestones for that year

We have passed some major milestones since 1993, and we have measured our progress by issuing a series of reports in September of each year (visit our web site, http://www.npr.gov/library/review.html for a complete list of downloadable reports).

In 1993, our first step was to reduce red tape and start measuring results. The environment at the time, at least in the federal sector, did not allow us to focus on...
what government did. Instead, we focused on how we did it. We looked at systems that cut across different federal departments, such as personnel, procurement, and finance. We projected that we could save $108 billion by improving the systems that cut across departments. That's when we put a stake in the ground about cutting federal employment by 272,000.

In 1994, we implemented our customer service standards, putting customers first. Instead of just talking about customer service, we required every federal department to publish customer service standards. That was very difficult in the first year, since many agencies did not even think that they had customers. In the Social Security Administration, my home agency, we talked about beneficiaries or recipients, but not in terms of customers. Making that mental paradigm shift, serving the citizen as a customer, was a difficult one. However, once you make that shift, it is extremely powerful. We reissue our standards every year, many agencies post them on their web pages, and we evaluating how we measure up to those standards.

In 1995, we issued a report on Common Sense Government. After the customer satisfaction standards in 1994, there were major changes in Washington. The elections created a Republican majority in the House of Representatives. The Republicans said they wanted to focus not just on how we do things, but what we do. Many issues were reverted back to states' responsibility, and there was a movement toward more block grants. It was a traumatic time for federal employees. The focus was on regulatory reform, because industry leaders were complaining about the burden of regulations on the ability to do business. Phil Howard, author of the book Common Sense Regulations, wrote the introduction to this report.

Our 1996 report was called Best Kept Secrets in Government. We had established reinvention laboratories, the word was getting out about our work, and political leaders were starting to get involved in the reinvention process. The problem was that there was no common voice to get the word out. We went around and asked different federal agencies what they were doing to serve their customers, empower their employees, cut red tape and get back to basics. We heard lots of wonderful stories, so we wrote them up and created the Best Kept Secrets report.

Finally, in 1997 we went to a businesslike government. We have learned a lot from the private sector, and in some cases, the private sector is now learning from us. At the Langley Air Force Base, for example, we had benchmarked the best pharmacies in the world—soon afterward, Wal-Mart came to benchmark us. We continue to learn from the private sector, which has helped us tremendously.

It is important to note that we don't simply strive to achieve a vague “best in class” or “world class” status. We must have tangible, understandable goals, and we get that by benchmarking ourselves against private businesses. For example, if you were to visit your favorite department store, you would expect a certain level of service. We can easily translate that into our interactions with citizens and customers, which is much more tangible than having some amorphous “best in class” label, and really not knowing what that feels or looks like.
A new director from the private sector

Morley Winograd from AT&T was recently named as the new director to head this initiative. AT&T has had several Baldrige winning divisions, and Morley was very instrumental in setting up AT&T University.

We used to be The National Performance Review, but since the review part is over, it's time to get into the doing part. We switched our name to National Partnership for Reinventing Government, because we cannot do anything on our own. We partner with state and local government, industry and its employees, labor unions and citizens.

Morley has brought discipline from the private sector, saying the government task force that is helping the Vice President also needs to be anchored in vision, mission and values, with clearer strategies and goals. Whenever you start a change effort, you are often very project focused. There was so much to do, it was so obvious what had to be done. But there comes a time when you're in a change effort, where you have to move beyond the project orientation to some sense of institutionalization, and start aligning your resources and leveraging those for maximum payoff. And this is what we plan to do in the next phase of the reinvention.

Vision for the future: “America At Our Best”

Our vision for the future is “America at Our Best,” and we used “our” deliberately because we wanted people to feel a part of it. One way of restoring trust is getting citizens to feel good about the economy, themselves, and their government. It is an intangible thing that you need to translate into actionable items.

Mission

Our mission is “In time for the 21st century, we will reinvent government to work better, cost less, and get results that Americans care about.” The “work better, cost less” part refers to getting our fundamentals down. The “get results that Americans care about” is equivalent to the Baldrige Criteria of saying you have a market driver, you know what your customers want. You do that by talking to them, and then you can translate that into strategies that deliver what customers want.

Our core values

We share clear core values that are essential to the team’s success:

• Community— we foster teamwork, partnerships and collaboration
• Courage— we take risks to achieve results
• Creativity— we seek out and reward new ideas and innovation
• Trust— we believe in empowering people to do the right thing
• Integrity— we practice high ethical standards in everything we do
• Diversity— we respect and celebrate differences
• Enthusiasm— we are passionate about making a difference
• Service— we provide our customers with products and information they want and need.
Breakthrough

One core value that I think is most interesting is creativity or innovation. Most of the time, when you think of your federal, state, or even local governments, you would expect traditional ways of solving problems. We are trying to change that.

If you've gone through several cycles of improvement and strategic planning, there comes a point where you need a breakthrough. When the fundamentals are basically addressed, how do you then take your operation to a higher level of effectiveness? We have been focusing on using creativity tools and techniques to help people break out of their old ways of thinking and achieve better results.

Align vision and values

It is also critically important to align all your stakeholders. If you are in the private sector, you have shareholders, employees, and customers. In the federal government, we have all the members of congress, the judicial branch, executive branch, employees, unions, and an entire nation of stakeholders. Change can be accelerated if everyone is aligned, but you can only align everyone if you communicate, face to face, what's important.

Our strategy for reinventing government

Our strategy has many facets to it. There are many things we can do to help achieve our goals, some of which are very obvious, but all of which need to be clearly stated. The first step is to align around clear vision, values, and goals. This is no different if you’re a government agency or a private sector organization. You have to know your purpose, where you’re going, and what the goals are. The values are the glue that holds an organization together.

We must always be asking what our customers want, and have an ongoing dialogue with the American people about what they value. We want cabinet secretaries to go out and talk to people on a regular basis. We also want to make it easy for citizens to get to us. For example, if you needed a passport and decided to check the telephone book, where would you look? Would you look under “S” for State Department, or “I” for Immigration Naturalization? Probably not. But that’s where it used to be listed. We now list it under “P” for Passports, and we’re changing it in every telephone book. It’s one example of a simple change that makes us much more accessible to the public. We’ve also started to publish a handout that lists 800 numbers and web sites for various services and departments.

We must target results that Americans care about, and establish performance measures that reflect those results. We are in the process of defining our outcomes and outputs.
Our strategy for reinventing government, continued

Since our resources are limited, we have to realize that we can’t do everything we want to. That’s why we focus 80% of our energy on the 32 “high impact agencies,” which account for 90% of the government’s interaction with the public. Examples of high impact agencies include the Park Service, the Postal Service, the Social Security Administration, and the Veterans Administration. The remaining 20% of our energy is focused on general sharing and help to others.

We have to encourage leadership, in three different respects. First, we refer to top leadership. When we began this initiative, we had many isolated, small successes, but we weren’t quite getting through to the top leaders. If you don’t have commitment from the top, you will not get very far. Second, we refer to the practice of leadership, and the shift toward an increase in educating senior executives, and learning new ways to lead and manage an organization. Finally, we refer to getting individuals to lead. When the Vice President meets with 800 federal employees at the annual reinvention conference, it is very clear that the people on the front lines get it. They are the ones interacting with customers, they know what it’s like, and they have stated very clearly that many leaders don’t get it. The Vice President has taken steps to have meetings with leaders, and set up sessions where they’re oriented to what they should be doing. There is also a handbook called The Blair House Papers on what is expected of our managers. Many political leaders come to Washington expecting to do grandiose policy, but we can’t deliver on big policy ideas if we don’t have a well-oiled machine to deliver them.

We must pursue fundamental reinvention through people, processes, and information technology. One initiative has been our Access America, which is a reengineering project through information technology. We created a blueprint for a virtual government, to try to make government services accessible to our citizens using technology. For example, if you wanted to start your business, you could access the Small Business Administration via the Internet, download business or marketing plans, look at job training on-line, or view a job bank for career opportunities in state and federal government. We continue to think of new ways technology can make our government accessible.

Our one goal is to restore trust in America’s government. But for different citizens, trust comes from a different angle, depending on how they interact with our government. Many people who go to a Social Security office, a post office, or a national park, simply want the best value for their taxpayer dollar. One of our measures is whether the productivity of our employees is at the optimum level to deliver the service.

We also want to provide the best service for each customer. When we first began this effort, we had difficulty applying the “delight your customer” principle to law enforcement agencies. After some conversation, we decided that “compelled
Our one goal is to restore trust in the federal government, continued

customers’ would be a more appropriate term. But compelled customers are still entitled to all their rights, and if you were a compelled customer, if you were arrested, you would still want to be treated fairly and equitably, and have all your rights under the law guaranteed. That doesn't mean that a law enforcement agency must sacrifice effectiveness. Part of the debate is to understand when you are treating that person as a compelled customer, and when you have to force compliance.

We want a good workplace for our employees. I don't know if we're ever going to be one of the 100 best companies to work for, but we are making improvements. In the last four months we have totally redesigned our own offices, for example, to make them more interactive and flexible.

We also want to create the best possible legacy for the future. Balancing the budget was a driver, and I hope we continue to have a budget surplus. We want fewer people on welfare. The Internet is beginning to take off, and accessibility is increasing as prices are falling. We once spoke of the information superhighway, but now we're really talking about a communication superhighway, because it is interactive and communication is two-way.

There are several areas where our top leadership has had an impact on what we do, particularly when it comes to communication. Someone once said that the currency of leadership is time, and if you want to find out what your leaders really value, look at what they spend most of their time on. Vice President Gore has spent a great deal of his time working on this initiative. When we first began this effort, he went to every cabinet department and had town hall meetings with all employees. That was where we got some of our initial ideas. Every year he meets with the federal employees in a reinvention conference. He also puts out messages to us, honing this strategy and the message.

If you're involved in large scale change efforts, you can't underestimate the value of having a stake in the ground with these various reports. We've done benchmarking studies, where we've gone to Baldrige National Quality Award winners, to examine and learn from the best in business. We have documented best practices in resolving customer complaints, best practices in strategic planning, best practices in world class courtesy, and performance measures. All of these reports are available on the Internet, at our NPR Web site.

We have created a virtual organization. We all have our home agencies, but we're on loan from them to form the nucleus of the NPR organization. We have new people joining us every six to twelve months, and we've had over 1,000 people come and go. They work on a specific task, and then go back to their home agency, hopefully recharged, reenergized, but with a network that they can tap into, and know how to use. We are hoping to reinforce their learning and continue to communicate our message through this virtual organization.

Leadership's commitment and communication has been essential

Journal of Innovative Management
Case Study

Over the past five years, there have been several things we've accomplished that we are especially proud of. Visit our web site for summaries of some of our major accomplishments, at http://www.npr.gov/accompli/index.html.

It seems as though we've broken the old paradigm that reinventing government was an impossible mission. Five years ago, I would have used an impossible mission analogy to describe this effort, but that's not the case anymore. We've had some measurable successes, which shows that we can achieve a reinvention at the federal level. We've achieved a better customer focus. Ten years ago, when I talked about the government serving customers, I would get rotten eggs thrown at me. But fortunately we're over that hurdle.

The National Aeronautics and Space Administration (NASA) has made several improvements with regard to strategic planning and redirection. They have reduced the time to design and develop a spacecraft from eight years to four. They have reduced their costs from 77% over budget to 5% under budget. Finally, they have cut waste by reducing their workforce by 55,000 employees and contractors.

The Federal Emergency Management Agency (FEMA) has totally reinvented itself. They have cut in half the time it takes for assistance to reach disaster victims, and reduced administrative costs by about $35 million. They also worked with Congress to pass the Hazard Mitigation and Relocation Assistance Act, creating a program to relocate flood-damaged structures. More than 12,000 properties in over a dozen states have taken part, and will never be damaged by floods again. In Missouri, the buyout program will save over $200 million over the next 10 years.

The Social Security Administration (SSA) has achieved world class telephone customer service by ranking above many respected private companies, as reported by an independent survey by Dalbar, Inc. They have also modernized payment delivery with electronic banking, streamlined and automated claims, and cut down on waiting time to see SSA representatives.3

We've had some legislative and system changes that have occurred, indirectly, as a result of our efforts. The Government Performance Results Act is a major reinvention piece of legislation. The Government Management Reform Act is another major reform initiative. There's also the Information Technology Management Reform Act, Chief Financial Officers Act, and other major legislation.

Our benchmarking studies, mentioned earlier, now make information accessible. That has been a major improvement.

We have established a reward and recognition system. We now have something called the Hammer Award, for those who have achieved a remarkable degree of customer satisfaction, employee empowerment, or partnering. We also have reinvention labs where we waived all the rules and regulations to see what is possible if we eliminate artificial constraints, and those have been wonderful.

Finally, as I mentioned before, we have had much success with Access America, using technology.
Some major challenges lie ahead

There are still a number of challenges ahead. One of them is what I call the wholesale versus retail approach to change. I believe that if you're a leader or a change agent you really have to understand the difference between the two. With almost two million federal employees, the sheer size of our effort makes it difficult. But when it comes to organizational change, the wholesale principle of “one size fits all” doesn't work at all. Federal employees know there will always be government-wide initiatives. But if we really think about it, real change comes when you change the behavior of one individual at a time. That's what I call the retail approach. It's very hard work to hear about all these organization-wide initiatives, communicate how they fit in with each other, and bring it down to the individual, retail level. Sometimes that means you've got to change it into your language. But the basic concepts, the basic principles are timeless. You just have to help people understand that.

We are still facing leadership and people issues, and turnover is still an issue. Political appointees are with us for 18-22 months. Military people are still rotating every two years, and even though over time they're building some core capacity with leadership courses, they have a different approach. We faced some people issues in the early phases of reinvention, and we did not pay enough attention to them. Sometimes it's easier to focus on systems and technology, but focusing on people is difficult, and we continue to struggle with that.

One of the biggest hurdles is trying to accurately measure government service. We need to work on measuring outcomes, and this is very difficult. It's extremely difficult to focus on figuring out the outcome of the department of education, when the end result is eighteen years down the road, after students have graduated high school. But you have to look at the outcome, and break it down into what we're going to measure, and at what intervals.

As I mentioned earlier, we have had several isolated successes, but we need to take the whole agency to the next level. Individually, we may have success, and our unit might be doing well, but we need to ramp it up to create total excellence.

Finally, we must keep it simple and keep communicating. Leaders, managers, and supervisors don't do enough of that, and one of the things I've learned is that you have to keep it simple, stay with the message, and get the word out through various media. It's done not only through speaking to large groups, but with visuals, informal discussion, face to face meetings, video technology or any other means at your disposal.

A look at future efforts

During the next year we will be having many conversations with America. There's actually a presidential directive to all cabinet secretaries encouraging them to have these conversations, and asking for quarterly reports on which conversations they've held.

We will also continue to focus on the 32 high impact agencies, who will be measured by the goals they each set. There are agreements with each agency's cabinet...
A look at future efforts, continued

secretary on what the agency will accomplish over the next year. And we’re going to focus on customer service, performance measures, and results.

Conclusion

In closing, I would like to state that progress is the sum of small victories by individual human beings. There’s a lot of heart and talent that has gone into reinventing government. I’ve shared our story with you, with some of our successes, and a lot of the challenges yet ahead.

If I step back and take a look at the big picture, I can honestly say that the supertanker has really changed course, and it’s moving full steam ahead. We’re trying to get all the other supertankers around it aligned. That includes our partners and our states. But I think we’re on the right track toward having a government that works better, costs less, and gets the results that American citizens really care about.

References

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Author information

Tina Sung is the director of the Federal Quality Consulting Group, on special assignment from the Social Security Administration. She coaches and advises top level government executives on strategies to achieve performance excellence, helping their organizations work better and cost less. Ms. Sung served as a Senior Examiner for the Malcolm Baldrige National Quality Award for six years. She was also a team leader for the consultants at the Federal Quality Institute.

Ms. Sung is a founding member and former vice chair of the Asian American Government Executives Network, and a member of the American Society for Quality Control, the Service/Quality Leadership Forum, and the Senior Executive Association. She has received numerous awards, including the Commissioner’s Citation, the Social Security Administration’s highest honor.

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City Year's Creative Hothouse:
Creating an Environment for Exceptional Creativity and Innovation

Author
Stephanie Wu, President, City Year, Boston, Massachusetts

A brief history
City Year began in 1988 when two Harvard Law School friends, Michael Brown and Alan Khazei, launched a two-month summer pilot program in Boston with 50 young people. They wanted to bring volunteers age 17 to 24 from diverse backgrounds to provide critical community service, while teaching them valuable leadership skills.

Based on the success of the initial program, the founders launched a 12-month program the following year. City Year now operates in nine cities across the United States: Boston; Chicago; Cleveland; Columbus, Ohio; San Jose, California; San Antonio; Providence, Rhode Island; Seattle; and Philadelphia. Approximately 800 17-24 year olds from diverse backgrounds commit one year of their life to community service. Each City Year member receives a weekly living stipend of $150, and when members graduate they each receive a $4,725 education award. About 49% of the program is funded by AmeriCorps, the national service program, and 51% of the funding comes from corporate sponsors and other fundraisers. Some national sponsors have included Digital Equipment Corporation, Compaq, Fidelity Investments, Motorola, Sony, and Timberland Company.

To date, over 3,200 young volunteers have logged more than 4.2 million hours of service since 1988. They have run after-school programs, cleaned beaches, painted schools, rehabilitated apartments and spruced up playgrounds. In many respects, City Year has become a national model for public service programs.

The Social Sector Context

Over the course of the past decade, the concept of volunteerism has become an increasingly important part of our country's civic culture. President Bush's Points of Light program and President Clinton's AmeriCorps initiative have promoted the ideal that a truly participatory democracy needs each citizen to contribute to their community. Across the country, increasing numbers of organizations have begun contributing to the social sector and volunteering their efforts. Private sector companies are making commitments to employee community service programs. High schools are implementing community service time as a graduation requirement. Business schools at Stanford University and Harvard University are developing management curriculums in social entrepreneurship.
Several factors are changing the social sector

The social sector is changing as a result of several factors. The government continues to contribute fewer resources to social service organizations. In order to continue existing efforts, and expand them even further, the social sector will need more support from other sectors and individuals. The success of the free market enterprise system is also having an impact. Nonprofits are being held to higher standards by boards of directors consisting of for-profit company representatives. Many nonprofits are generating their own revenue by selling products and services in an effort to diversify and stabilize their funding base. A new generation of nonprofit leadership is emerging, and they are adopting private sector practices for social change purposes. New philanthropists, with entrepreneurial approaches to giving, are emerging in the wake of the successful high technology industry. In short, the social sector is more competitive and is more accountable to outcomes than ever before.

New ideas are needed to succeed in the social sector

Organizations need to constantly generate cutting-edge ideas to remain relevant and competitive in this rapidly changing environment. In response to these demands, City Year is implementing a change program that will strategically leverage a seemingly endless well of creativity. During our nine year history, our culture has fostered idea generation and implementation. In this article, I will briefly explain how we built our creative “hothouse,” the challenges we currently face, and the measures we are taking to remodel the hothouse.

City Year Nuts and Bolts

City Year recruits a diverse group of young people, 17-24 years old, to commit one year of full-time community service (see the Mission, Vision, and Goals in Figure 1). Examples of service projects include running after-school programs, leading middle school children into service projects, building community gardens and playgrounds, working in homeless shelters, and teaching HIV/AIDS curriculums in elementary schools. In the process of doing community service, the young members of City Year learn to work with people from different backgrounds.

Figure 1. City Year’s Vision, Mission and Goals

Vision: One day, the most commonly asked question of an 18-year-old will be “Where are you going to do your service year?”

Mission: To tap the civic power of young people for an annual campaign of idealism

Goals: To generate transformative community service, break down social barriers, inspire citizens to civic action, develop new leaders for the common good, and improve and promote the concept of voluntary national service.
backgrounds, and become active citizen leaders by working on some of society's most pressing problems.

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**Putting Idealism to Work**

A powerful idea launched City Year, and our idealistic culture is the central organizing theme of the organization. Our motto is “Putting Idealism to Work.” We define “ideal” as: An idea that exists within the mind in a perfect state. Idealism, then, is the practice of envisioning things as they could be, and taking practical steps to make that vision a reality. City Year members implement social change ideals for the common good. We have a staff handbook called Putting Idealism to Work that catalogues and explains the founding ideas of our organization.

We use an Idealism wheel that outlines a four stage process of idealism, (1) Imagine, (2) Recruit, (3) Transform, and (4) Inspire. These four stages are guidelines for implementing an idea in our daily work. The wheel takes us through different stages of progression and comes full circle, to begin the process again. It gives us a greater vision, deeper knowledge and even more inspiration.

Imagine—This process begins with imagining a vision of how things could be. First we must imagine the possibilities, think outside our boundaries, and create a vision for what we want to accomplish and why. In this stage we question our limits and barriers, define our purpose, and gain a clear picture of the finished product.

Recruit—Next, we begin to actively pursue that vision by recruiting people and resources (financial partners, service partners, community support or materials) to join in the effort to make the vision possible.

Transform—Once we have engaged others in this vision, we plan, strategize, and work very hard to make the vision a living reality. Utilizing recruited resources, our joint efforts can transform a vacant lot into a playground, create a new major gift giving program, or engage 20,000 citizens in the National Serve-a-thon.

Inspire—The end result is an excellent product that accomplishes the purposes set out, multiplies resources, engages and inspires others, and re-energizes us to push onward. When the project is complete, we invite people to witness the transformation. The evidence of change inspires a wider circle of people, causing them to ask “Why not?” rather than “Why?” Through excellent service, the circle of inspiration grows, capturing more resources, partners and communities, and generating new
CASE STUDY

Defining Idealism and outlining a four stage process, continued

and greater visions of what could be.

Finally, the circle comes back to the Imagine stage, where we reflect on what we've done, our strengths and weaknesses, what worked, what didn't, and why. Having evaluated what goals were met, we are inspired to a new and stronger vision of what is possible. We start the circle again with our ideas of what could be.

Some sample tools

There are different tools to help guide us through each stage. For example, in the Imagine stage we use vision exercises and brainstorming to get people's imaginations rolling. We also use NO STUESO, which is an acronym for No One Speaks Twice Until Everyone Speaks Once. This is particularly useful when dealing with hot topics in a lively debate, to ensure all opinions are heard and all options explored. We also have our Concentric Circles tool, where people sit in chairs set up in two concentric circles, with the inside chairs facing out and the outside chairs facing in. People are paired up, and we ask them to discuss a topic for five minutes, then rotate chairs. This is a great tool for beginning a session or engaging people in exploring new ideas.

Sharing stories through “Ripples”

The culture of City Year honors idealists and their accomplishments. Every City Year meeting begins with something we call “Ripples.” This agenda item allows some time for people to share recent stories about an individual's act of courage and belief. The concept and name came from these inspiring words by Robert Kennedy in 1968:

It is from the numberless diverse acts of courage and belief that human history is shaped. Each time a man stands up for an ideal, or acts to improve the lot of others, or strikes out against injustice, he sends a tiny ripple of hope, and crossing each other from a million different centers of energy and daring, those ripples build a current which can sweep down the mightiest walls of oppression and resistance.

The stories vary from one corps member's work in the community to a corporation's decision to invest in us. The ritual of telling Ripples helps create a positive, energetic, “can-do” environment.

High growth presents challenges to innovation

The Framework of City Year's Creative Hothouse

The prolific growth rate of ideas at City Year can be as daunting as it is inspiring. There are so many opportunities for us to develop ideas and implement them, that veterans of City Year tend to focus on seeking the best ones, while filtering out the implausible. In fact, the hardest thing to do is to pick the truly best idea and focus a team of people to bring that idea to greatness. On the other hand, when there is no quality control or filtering of ideas, there are too many priorities and the organization loses focus.
Four elements needed for ideas and innovations to develop

We have found that we develop important ideas and innovations when there are four elements present:

1) A Powerful Project
2) A Diverse Team of Talent
3) Idealistic Culture and
4) Structure.

The information that follows explains our thinking in each of these areas and some of the changes we are implementing to improve our effectiveness.

The first element: A powerful project

A powerful project is something that generates a significant positive transformation in a community. It may have heroic goals that inspire people to develop new ways to achieve them. City Year believes that people rise to meet expectations. In our experience, when a project has audacious expectations, young people respond with incredible strategies. For example, four years ago a group of middle school children asked corps members, “How can we get involved with City Year?” The children were younger than our minimum age requirement, but several corps members responded by creating a new concept—Young Heroes—a Saturday service program for middle school students. The corps members wrote a proposal to the Reebok Foundation, who responded with a donation to get things started, and a pilot program began running during summer vacations. The Saturday volunteer program is now being expanded year round, Saturdays and after school, with over 800 middle school children. Young Heroes was a great idea that came from a few young people who imagined middle school students in service.

The genesis of all good service starts with the Imagine stage from the Idealism Circle. A social change agent must imagine what could be. Nearly every significant change in the world has come from people who saw the world as it could be and said “why not?”

We do not have consistently strong projects across the City Year network. We are implementing a new structure that will systematically develop transformative project ideas. A new project selection program requires all projects to develop a concept paper before approval. If the idea is not transformative the project will not move forward. If a project proposal is accepted the author will have access to the resources they need to implement it. Anyone can submit a project proposal—corps members, staff members or leaders from other non-profits.

By establishing a project selection system we will encourage and reward good ideas with organizational resources and the opportunity to put an idea into action. The process will act as a quality control measure, greatly reducing time, talent, and money spent on mediocre projects.
CASE STUDY
City Year's Creative Hothouse

The second element: A diverse team of talent

The quality of our innovation is directly related to the quality and diversity of our people. Our protean-like ability to meet the challenges of aggressive expansion, product definition, marketing, and organizational development comes from our diverse workforce. All of our problem solving, at all levels of the organization, is done in teams. Every team is diverse or inclusive. Teams that encompass a variety of different perspectives and life experiences produce the most effective and cutting-edge solutions. City Year is successful with executing a social change vision because we are incorporating a diverse set of minds into the vision.

The team structure also plays a critical role in making diversity work. We have various tools we can use during meetings that encourage full and equal participation, such as NOSTUESO. Another example is our team huddle, called a Strong Circle, where everyone at a meeting stands or sits in a circle, so that no one is in and no one is out. Diverse Portfolio Teams are used in the Management and Administrative offices. All Portfolio Teams are made up of people who represent different departments. For example, when City Year created a relational database, we created a Portfolio Team with members from Human Potential (Human Resources), Development, Finance, Evaluation, Service, and Recruitment, so that the database would reflect the needs of the organization, not one department’s interpretation of those needs.

A creative environment demands flexibility and people who are change-oriented. We recruit people who desire challenge, possess entrepreneurial instincts, self-motivate to build an organization, lead and follow in teams as needed, and show limitless development potential. Professional skills are important for some functions, but we put a high premium on people with potential who can learn very fast.

One significant problem we have had in this area is retaining key people after a two to three year tenure. Many of our staff members are in their mid to late twenties and leave City Year to go on to graduate school. We are currently implementing a new human resources management system that will encourage people to see City Year as a profession. Our innovations in this area come largely from the private sector. We will be changing our performance review system, our compensation structure and establishing a tuition reimbursement program.

The third element: An idealistic culture

City Year has a very idealistic culture. All innovations are valued, big and small. The idea that improves the nametag on a uniform creates as much excitement as one that leads to raising more money.

The teaching of values is inherent in the City Year vision. In order for a large group to effectively meet a common mission, everyone must be operating on the same set of values. For example, two of City Year’s values are teamwork and diversity. People who do not value these things will not be successful at City Year. They will find it difficult to accomplish their work on a moment by moment basis. Our culture reflects these values in the way our meetings are run, the people in the
The third element: An idealistic culture, continued

meetings, the stories that are told, and the wearing of the uniform. We encourage people to innovate within our culture of imagination, organization, communication and action. Our strong culture allows people to take initiative and innovate because they can use well-defined parameters to self-evaluate their work. It is not part of our culture to wait until management issues a directive—most innovations happen through a healthy cross-fertilization between management and the front line. The City Year culture supports innovation by assuring that we all work toward the same goal, even if we’re working in different parts of the organization.

The challenge we have faced in recent years is that the strong culture can squash initiative-taking in subtle ways, especially when other aspects of the program are not fully developed. There is a two-week Summer Academy training for all staff, old and new, which is an intense immersion program in the City Year culture. Specific project management training is also offered. Two years ago the Academy staff started to notice that people who had been through the training did not seem to take as much initiative or develop innovative solutions to problems as well as the new staff who had not been through the training. We decided that the way the Academy was communicating and training people in the culture was not liberating people, but causing them to second guess themselves. We addressed this problem by changing the Academy attendance requirements, faculty recruitment, and the way our curriculum was being delivered.

Attendance had always been mandatory, which removed a level of each participant’s personal investment in their professional development. First, the Academy implemented an application process, which meant that people had a choice to attend or not, and the Academy could manage the quality of the class. For example, applications that did not show an acceptable level of motivation and desire to attend were rejected.

Faculty recruitment also changed. Traditionally, the Academy leadership selected summer training faculty from the staffing complement of the nine City Year sites. It was not a scientific selection and we often used the same people with the same training approaches from year to year. The process created an awkward “star search” dynamic throughout the organization. It also meant that selected staff did not see the Academy as an opportunity but as another assignment from the National Headquarters. The change was simple. We asked for all interested people to apply to be on the faculty. Immediately we had a competitive pool of high quality candidates; many of them were new to the organization and brought fresh ideas to the curriculum.

The last change we made was in the curriculum delivery. Historically, the Academy had all participants attend the same training modules at the same time and we offered about 20 courses. Last summer with more faculty, we offered 53 courses so that people had a menu to choose from. Participants invested in their professional development by working with their supervisors to determine what skill areas they needed to improve. And with more people teaching the courses, we increased the
The fourth element: Structure

Structure liberates creativity. Artists of all mediums learn this from the beginning of their training. Painters begin their study by learning how to draw with charcoal, then they progress to painting with color. Innovation without boundaries, structure, or discipline will simply be a lot of fuzzy ideas that are never fully realized. An organization’s structures will either release everyone’s creativity or inhibit creative people. At City Year, some of our most innovative thinkers operate as mavericks, outside of our operating structures, because their creativity requires that kind of freedom. However, it is becoming more apparent to us that we have some management structures that are barriers to good ideas.

Conclusion: Will We Meet Our Potential?

City Year could be considered a successful start-up, by many standards. However, in an effort to continuously improve our organization, we began an evaluation of City Year. Our leadership decided that to reach our full potential, we needed to transform our organization and change.

In July 1997, we launched Operation: Butterfly. The metaphor is one of transformation, where we compare our start-up phase to a caterpillar, and our changes are meant to bring us to our full potential as a butterfly.

Our change efforts center around creating management structures and systems that will release the entrepreneurial creativity of City Year’s people. If City Year can systematically support and nurture cutting edge ideas to solve social problems, we believe we can produce an entirely new generation of leaders for social change. We have much to do but we are listening and learning from many of our stakeholders.

Author information

Stephanie Wu is a founding staff member of City Year, a national program where 17-23 year-olds volunteer for one year of full-time community service. City Year was founded in 1988 in Boston with 50 young people—the organization is currently operating in nine cities across the country with 750 members. Stephanie has held a variety of program and senior management positions. Most recently she was appointed President of Academy, which leads the organizational change initiatives and develops training programs for City Year and other organizations.

Stephanie graduated from Boston University’s College of Communication in 1988. She is an alumnus of the American Field Service Program, having served in North Wales for one year.
Creativity Tools for the College Classroom

Ileana Irvine, Professor of Education, Inter American University, San Juan, Puerto Rico

About two and a half years ago, I attended one of the first workshops on “The Seven Creativity Tools” taught by Janice Marconi at a GOAL/QPC Conference. I learned the creativity tools, and how they can help individuals and groups be more innovative. Excited by the possibilities the tools offered, I began to teach them to some of the administration and faculty at the Inter American University in Puerto Rico where I am a professor of Education. But it wasn’t until one day when I was sitting alone at lunchtime, reading John Kao’s book Jamming: The Art and Discipline of Business Creativity, that I saw the creativity tools’ full potential in education.

John Kao defines jamming as—

To take a theme, a question, a notion, a whim, an idea, pass it around, break it up, put it together, turn it over, run it backward, fly with it as far as possible, out of sight, never retreating, but yes, here it comes homing in, changed, new, the essence, like nothing ever before.

This describes what the writing process is for me. It is like a jam session in my head. However, when I looked at the way that I was taught how to write it was very different—very rational, very structured. Nothing like the magic that writing really is.

This article describes how the creativity tools can be used to improve writing in the college classroom or in the workplace.

The traditional model of writing directs the student to choose a purpose, limit the topic, prepare a formal outline, develop paragraphs, revise and polish. While the model mimics what the final product looks like, it has nothing to do with the real process of how ideas are formed and how they develop in the student’s head. When I explored the current research, I found that some people are doing exciting things in writing instruction. However, many writing classes are still being taught following the linear-composing model (shown in Figure 1). So much so, that a recent book by Grabe and Kaplan, The Theory and Practice of Writing, published in 1996, calls this the Current-Traditional model.

The Current-Traditional model makes several assumptions. One is that the
Traditional model of writing, continued

student works alone, not with other people. There is this mystique of the writer working alone at a desk, isolated from the world. Another assumption is that writing instruction is based on usage, grammar, and spelling exercises that the student performs alone. It's only the teacher who gives feedback, usually with notes in red ink on the side of the paper. Grabe and Kaplan indicate that chief among these assumptions is the romantic conviction that the creative aspects of the process are mysterious, inscrutable, and hence unteachable. What can be taught and discussed are the lesser matters of organization and usage. So instructors have concentrated all their efforts on teaching these “lesser matters.”

Maybe creativity cannot be taught, but it can be learned

These assumptions were held under an older, larger paradigm of teaching in which the instructor taught the student: the instructor dispensed knowledge. I think the assumption of the Current-Traditional model that one cannot teach creativity is correct—under the old paradigm. The old paradigm is now being replaced by a new paradigm, called facilitated learning, where the instructor creates the conditions for learning to happen. Creativity can be learned when instructors create an environment for developing student creativity. I had been impressed by the exchange of ideas and the creativity unleashed in students working together in teams. But I thought that day at lunchtime, wouldn't it be wonderful if I could create a jam session in the classroom?

De Bono and Sternberg models of thinking

Edward de Bono (1970) wrote a classic book on creativity called Lateral Thinking. Figure 2 shows two types of thinking de Bono describes in this book. Traditional writing instruction has stressed the selective, logical, analytic, and sequential associated with vertical thinking. The creativity tools can help us develop what he calls lateral thinking.

I also gained insight from Robert J. Sternberg (1997) and his book Successful Intelligence. He believes that a requirement for successful intelligence is creativity. Successful intelligence requires the three types of thinking shown in Figure 3 on the following page. As we all know, traditional I.Q. is an insufficient measure of what it means to be successfully intelligent. Real intelligence is a lot more complex than the mental ability most I.Q. tests actually measure. Following Sternberg's line of thought, in order for students to write an essay they need to develop all three components. First, they need creative intelligence, which moves beyond the generation of ideas to develop a synthetic thinking that seeks connections. Second, we need to develop an analytical intelligence that analyzes and evaluates ideas. This includes
De Bono and Sternberg models of thinking, continued

Problem solving and decision making skills. Third, we need to develop practical intelligence, the ability to translate theory into practice and abstract ideas into practical accomplishments.

Flower and Hayes writing model

Next I looked up the Flower and Hayes model (1984) shown in Figure 4. Notice how this model of the writing process incorporates the same three kinds of thinking that Sternberg described: the creative, the analytical, and the practical.

Trying out the creativity tools in my own class

Most of my work so far has been with the pre-writing stage and the initial parts of the writing process, which includes the generation of ideas, planning, organizing, and working with the writer's long term memory. I use the creativity tools because they provide a framework to practice the creative, analytical, and practical intelligence. The creativity tools help generate new ideas and integrate the use of intuition, insights, and hunches. They're structured and systematic, they're effective pattern breakers, and they promote synergistic, strategic thinking.
Creativity tools and the disciplines

I had success with integrating the creativity tools into my own teaching, but I wasn't sure how it would work in other disciplines. So I started teaching the tools to my colleagues and helped them use them in the classroom. What follows are examples of what I have done and some ideas that were given to me by faculty who participated in the workshops. Most of these ideas can also be useful for managers and trainers in the workplace. For more detailed instructions on how to use most of the creativity tools in this article you may refer to Marconi (1996), and King, Schlicksupp (1998).

Classic brainstorming: when and how to use it

Classic brainstorming is the most basic and frequently-used creativity tool. It has been used in a variety of settings in the workplace and the classroom. Classic brainstorming helps participants focus and strengthens teamwork by allowing them to pool their knowledge and creativity in an open, non-critical environment. It helps students understand and value diversity as they become aware of the many different thinking styles and approaches to the same problem or situation.

It is an excellent initial tool since it helps “warm up” the team to get the ideas flowing. Instructors may select the topic for the brainstorming session, or the tool may actually be used to have the students generate ideas to work on with further brainstorming or with the other tools.

Classic brainstorming follows certain rules. It ensures that every team member will have a chance to participate and be heard: one person, one turn, one idea. There is usually a facilitator who writes down each idea exactly as it is expressed by the speaker. No criticism of ideas is allowed while brainstorming is going on. Janice Marconi recommends extending the brainstorming session beyond at least two dead points. I have found this to be very useful, indeed. The more creative ideas will usually come out after the members really press themselves past the superficial ideas that will come out at the initial stages of the session.

Imaginary brainstorming: when and how to use it

Imaginary brainstorming is a powerful tool developed by Dr. Helmut Schlicksupp of Frankfurt, Germany, to help people break out of their established thought patterns.

This is an excellent tool to use for problem solving assignments when participants are “locked” in a specific thought pattern and find it very difficult to think in innovative ways.

The first step for a session of imaginary brainstorming is to carry out a classic brainstorming session on a problem. Then a second brainstorming is conducted by substituting one element of the original problem, thus creating an imaginary problem. For example, after hurricane George hit us in Puerto Rico last September, I carried out an imaginary brainstorming session with a marketing group. Since news of the devastation brought about by the hurricane circled the globe and affected our tourism industry, I first had the teams brainstorm ideas on a very real problem—how to attract international tourists back to our hotels. Then, they did a second
Imaginary brainstorming, continued

brainstorming session, following the same rules of classic brainstorming, but on the imaginary problem of how to attract visitors from outer space to our hotels. This liberated their thinking and opened their minds to some very original ideas.

The third step is to connect the ideas of the imaginary brainstorming session to the real problem. Ideas that are directly transferable as written are classified as T. Ideas that can be used in a symbolic way are classified as S, and those that cannot be used are labeled N/A. Teams find that most ideas in their imaginary brainstorming session can be used (T or S) to think about the real problem. They also have more fun brainstorming using their sense of humor, a factor that Dr. Schlicksupp believes greatly enhances creativity.

Sensanation: when and how to use it

Sensanation is a multisensory brainstorming tool developed by Mike Vance and used by the Walt Disney Company to develop attractions for their theme parks.

This tool can be used to enrich most kinds of writing assignments since the multisensory approach provides for greater depth of perception and richer imagery. It helps students create a virtual reality as they can project themselves into the scenario that they have created. It is also effective in providing students with different perspectives, problems, and situations.

The first step is to carry out a brainstorming session using each of the five senses, then combining the senses to create multisensory scenarios. For example, I have given writing teams this assignment: describe the setting for a television special on Christmas in Puerto Rico. They brainstorm ideas on what it would look, smell, taste, sound, or feel like. Then they combine all these wonderful sensory expressions to recreate, through language, our warm, green, tropical Christmas.

In another example, a history professor used this tool to help students develop a research project. He used the tool to divide the class into teams to create written scenarios. Each team was assigned a character from the sixteenth century when Puerto Rico was attacked by pirates. The students carried out research on the period from the perspective of what their characters would see, hear, feel, taste or, smell. In this way, the tool not only directs and structures the writing, but the research as well. Furthermore, it helps bring history to life for the students.

Brainwriting: brainstorming on paper

Brainwriting is very similar to brainstorming except that the ideas are written down instead of spoken out loud. There are many brainwriting tools, but some that I have used in my workshops are Method 6-3-5, idea cards, and the brainwriting pool.

Brainwriting is a great tool to help students develop their writing skills since it focuses mainly on written, not spoken, communication. Of course, there may be some discussion of their ideas at the end of the session, but throughout the exercise students are silent while writing. This makes these tools very effective for large groups and in some second language settings. I use these tools frequently to get
Brainwriting: brainstorming on paper, continued

writing teams to organize their ideas for papers and writing projects. Many of my colleagues use them to assess group learning before exams.

The following is a description of the steps to use each of the three brainwriting tools mentioned in this article:

Brainwriting Method 6-3-5: when and how to use it

The Brainwriting Method 6-3-5 has such a name because it is designed for six people, three ideas, five minutes. Use a large sheet of paper and divide it into 18 cells, six in the vertical plane and three in the horizontal. Each student in the team of six receives one of these sheets of paper. The topic is announced, and the first round of five minutes for three ideas begins. Then, each person hands the sheet of paper with the three ideas to the person to the right. This person will comment on the ideas expressed on the paper or will write, in five minutes, three new ideas of his or her own. This process continues until each person receives their original paper back with all the comments. Each paper will generate 18 ideas so, with six people, there will be a total of 108 ideas collected in 30 minutes. Although the participants can write directly on the sheet of paper, I use Post-it Notes™ so that ideas can be moved and grouped together later.

Idea cards and brainwriting pool: when and how to use them

With idea cards, the writing team should sit in a circle, preferably around a table. At the beginning of the session, a packet of index cards or Post-it Notes™ is placed at the center of the table, large enough so that each student can draw from the pile. The students then write all the ideas that come to mind that may be relevant to the topic assigned. One idea per card. As soon as the student writes each idea she puts it in a packet to her right. When she cannot think of any new ideas, she picks up a card from the packet provided by the participant to her left. She reads them to see if they provoke new ideas, and then puts it in the pile to her right. Without speaking, the written ideas can help prompt the production of new ideas. The ideas go around until the end of the session.

The Brainwriting Pool is very similar to the idea cards. The main difference is that after the participants write their ideas, they put them in a pool in the center of the table so that other participants can draw from there to help stimulate the mind to create new ideas.

The Affinity Diagram: how and when to use it

The Affinity Diagram is usually grouped under the Seven Management and Planning Tools—however, it can also be considered a creativity tool because, like imaginary brainstorming, it helps people break out of established thought patterns. It helps teams to think about a subject and to group ideas under different headings.

Teams can use the affinity diagram to combine their thought processes and group ideas generated by the previously described methods of brainwriting. This tool allows teams to organize a large number of ideas and issues and then summarize...
natural groupings among them to understand the essence of problems or solutions.

First, the team generates a fairly large number of ideas. Then, using the same process as in classic brainstorming, each team member reads one idea at a time, making sure that everyone understands the idea, but without discussing its worth. Each idea is placed on a flip chart. This continues until all the ideas are read. The team then **silently** groups the ideas until they are satisfied with the outcome. Then, they discuss the title of each group of ideas and place a header card to identify them.

This tool is frequently used in education to plan all kinds of papers and research. An Industrial Psychology professor used this tool to help his graduate students design an instrument for a company to use for interviewing job applicants, as shown in Figure 5. The students provided ideas for the job description and then used the tool to help generate the interview questions. Then, they checked and polished the questions and assigned a scale to measure each dimension. Finally, they administered the questionnaire. Use of the creativity tools helped them integrate lateral and vertical thinking. According to the professor, the students were able to produce an instrument that was team-developed and original, and they also learned to structure the process systematically. All of this was done in less time than the process took when the students worked using the traditional, individual method.

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**Affinity Diagram, continued**

**Heuristic redefinition: how and when to use it**

Heuristic redefinition enables teams to visualize a problem more clearly as a system, and to explore the relationships among the components of a system.

Heuristic redefinition promotes higher level systemic thinking. It helps teams to look at complex problems that have interacting subsystems. Writing teams can use this tool to define the problem, to gather and share knowledge, and to ensure that all essential elements are taken into consideration.

The first step is to pose a general question such as: “What are all the elements and issues we need to take into consideration to solve the problem?” The team then
Heuristic redefinition, continued

draws pictures and visual symbols to represent the elements of the system to reveal its components and subsystems. Interrelationships among the elements are explored. The second step is to evaluate potential problems through the use of a matrix to determine which problems should be addressed.

In my curriculum theory course, the students are asked, “What are all the issues and elements we need to address in order to develop a curriculum?” They made pictures of all the components, and then numbered each one. Then we explore the interrelationship between the components with questions such as: How can we ensure that the curriculum addresses the diversity of students? How can we ensure that all pertinent areas of subject matter are included? How can we ensure that learning theory and instructional theory are linked? How can we ensure that there is a system to evaluate the effectiveness of the curriculum through student learning? Curriculum is a value-laden field. The minute that the students put a symbol on their flip charts, it’s a value decision. So each of the teams will create a different diagram and a different set of questions.

Mind Mapping: how and when to use it

In school students learn to use linear outlines to plan a writing assignment. Mind Mapping is a nonlinear tool used to branch out the major issues and sub-issues surrounding a core topic. It is a map of connected ideas that helps the team to explore relationships and interrelationships in a topic.

Tony Buzan (1997) who created this technique calls it “radiant thinking” as all issues emanate from the topic at the center of the map as shown in Figure 6.

Mind Mapping has an infinite variety of uses, and it is especially useful to help
Mind Mapping, continued

the students explore a topic in depth. This makes it a very effective tool for team writing projects. The first branches provide the first outline of the topic, and then the teams can proceed with more detailed research to complete the map. With this tool you can have several teams working on different aspects of the same topic, and the relationship of the work of the teams will be obvious to all members.

To use Mind Mapping in the classroom, first select the topic for discussion and place a word or a symbol at the center of the page. From this central concept, branch out all the major ideas. Choose colored pens or pencils so that the they can be used to convey meaning. It is suggested that the mind be kept “free” so that ideas can flow. Each of these branches is further branched out with related ideas. All ideas must be connected so that relationships can be explored. All words must be written in capital letters, and symbols are strongly encouraged.

Mind Maps can be used by students individually or in teams. I find that the interaction of team Mind Maps is very exciting for the students. I have used it for research projects and to map answers to essay questions for exams.

A Mind Map is not a summary or an outline. A summary is linear—the old way of writing instruction. A Mind Map is non-linear. Everything is connected. It better represents the way the mind works—through symbols, associations, and colors.

The morphological box is used to explore a problem in depth, and to provide a wide assortment of solutions. The morphological box is a matrix with the parameters of the problem on the vertical axis and the possible options on the horizontal axis.

This is an excellent tool to explore a problem in depth and develop a variety of alternative designs or scenarios.

The first step is to develop the vertical axis, the parameters of the problem. These are independent from each other and include all essential aspects for thinking about the problem. Then the horizontal axis is developed with a wide assortment of possible options for each of the parameter. The options from each parameter are combined to develop a variety of scenarios for discussion.

A professor of music used this tool (Figure 7) to help the students develop

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Style</td>
<td>Samba Latin Bebop Blues Free Style Dixieland</td>
</tr>
<tr>
<td>Accompaniment</td>
<td>Bass Guitar Drums Brass Woodwind Percussion</td>
</tr>
<tr>
<td>Soloist</td>
<td>Saxophone Guitar Piano Drum Flute Trumpet</td>
</tr>
<tr>
<td>Audience</td>
<td>College students Music students General public Jazz fans Musicians Dancers</td>
</tr>
<tr>
<td>Place</td>
<td>Theater Open air Jazz Studio Church Club</td>
</tr>
</tbody>
</table>

Figure 7. Scenarios for Jazz Appreciation

Journal of Innovative Management
multiple scenarios for a music appreciation course. First he selected the parameters for a concert: style, accompaniment, the solo, the audience, the place. Then came the development of a variety of options for each parameter. The students can then roll dice to select an option for each parameter and, through this combination, design a concert experience.

Combining the tools
All of these tools can be combined for greater creative productivity. Brainstorming can be an initial tool, followed by imaginary brainstorming or brainwriting. The Affinity Diagram is, of course, a very effective tool to follow brainwriting sessions. Sensanation and the morphological box can be used to develop multisensory scenarios.

Creativity tools for writing in the workplace
Although this article focuses mainly on the use of creativity tools to promote writing in the college classroom, I have used these very same tools in my workshops in the workplace. I have taught these tools to many managers who have found them very useful. I recently offered several workshops for the Puerto Rico Telephone Company where managers used the tools to plan meetings, organize reports, design a plan for air conditioning maintenance, design marketing plans, and develop an emergency plan if an earthquake occurred. The managers were just as enthusiastic as my students. They had also been taught how to write with the traditional methodology and found this new experience liberating.

Conclusion
Creativity tools have proven to be very powerful to promote writing, especially at the pre-writing stage where ideas are generated and interrelated. These tools have also proven to be quite useful in helping teams organize their ideas and their research. Managers and college students have used these tools to improve their writing and successfully explore new alternatives. Instructors or corporate trainers can create unique and varied learning experiences that challenge the learners' thinking by using the creativity tools.

References


References, continued


Author information

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The Future of Total Quality Management

A Compilation of GOAL/QPC Research

Bob King, Chairman and CEO, GOAL/QPC, Salem, New Hampshire

This article is an effort to bring together some of my thoughts about where we've been, where we are today, and where we're going. I would also like to share some of the research that GOAL/QPC has done, and to offer you ideas about the things we've been working on, particularly in the area of creativity.

About five years ago, I was giving a presentation at our conference, and I reported on some recent news articles that spoke negatively about Total Quality. One headline that comes to mind read “Total Quality is Dead!” Of course, my response was “Nonsense!” To prove my point, I got into the data, which really showed that organizations were still getting better through Quality. The reports from Baldrige National Quality Award winners have shown that they are way ahead of their competition in terms of quality and profit.

But I think the story is a little more complicated than that, and there are other dimensions to the story that we need to look at. Gareth Morgan has talked about metaphors, saying that they can be useful, and they provide insight, but they also have some aspects to them that don't work. I would submit that Total Quality is very much a metaphor. It has provided some insights, but it is not a cure-all, and we need to look outside Total Quality to make our organizations truly successful.

An early definition of Total Quality was that it meant including all employees, all departments, every day, improving quality, cost, procedures, systems, to create a product or service that is the best in its class. It seems to me that this definition captured the three insights of Total Quality. First, all-employee participation was a new concept. Problem solving and planning used to be the job of a few people in the organization; now it's everyone's job. The second insight was that cost and quality are not separate. Improved quality leads to reduced cost, and improved policies and procedures lead to improved quality and reduced cost. The third insight was that we can be best in class, if we use these processes, and work hard at improving them.

But there are some aspects of Total Quality that are problematic. It has not always taken into account the human dimension. The push for quality and cost savings has had a brutal impact on employees, and that's part of the reason that we now focus our efforts on respiriting the workforce. Another problem with Total Quality is that it became a fad. Everybody was buying Total Quality in the late '80s and the early '90s, so if you were a consultant and you wanted to make money, the
The easiest way was to take your old materials, tear off the cover sheet and replace it with a cover sheet that said Total Quality. The result of that was a lot of confusion and unevenness. There was quality Total Quality, and poor quality Total Quality. Many organizations hoped that this would be the quick fix, the silver bullet that solved all their problems. If we just do Total Quality, they thought, all of our problems would be solved. And with a half-hearted effort, they took the pill, but the miracle cure they hoped for didn’t happen.

Getting Input from Our Customers

It is clear that some companies, Baldrige Award winners for example, have used and continue to use the Quality system to get better. But we wanted to know what was happening across the board. We surveyed 25 of GOAL/QPC’s leading customers, and 75 people from a national directory of companies. We took a mix of large companies, medium companies, and small companies. We looked at manufacturing, health care, government, and education. Here are some of the results.

The first question we asked was “What has happened in your organization in the last three years?” We wanted to know whether improvement efforts were increasing or decreasing, or staying the same. About 86 percent said that continuous improvement activity had increased, and only six percent reported a decline. Then we asked about the future, whether they had reached their peak, and are the best they can be. About 83 percent expect a significant increase in the future.

Then we asked what factors were causing an increase in their efforts at continuous improvement and organizational transformation (see Figure 1). Competitive pressure, not surprisingly, was the number one factor, followed by efforts to improve products and service. Customer requirements such as ISO were also mentioned, as were efforts to reduce costs. Then we asked people what was getting in the way of their improvement efforts. They mentioned financial constraints, downsizing, lack of time, poor leadership, and lack of training.

Figure 1. Some Survey Results
The Future of Total Quality Management

The bottom line is that we learned improvement tools and improvement processes were alive and well, and in fact, their use was expanding. We also learned that people were doing some things to make them right, and some things were changing, especially the references to the word Quality.

Changing the Language

I mentioned earlier that we don’t even know what to call these improvement efforts anymore. One interesting fact is that the Malcolm Baldrige National Quality Award has reduced the use of the word quality over the years. If you look at the criteria, the section on planning has changed significantly. Ten years ago the criteria said that a company should have a good quality plan. Eight years ago they said the quality plan should be consistent with the business plan. Six years ago they said the quality plan should be connected to the business plan. Last year they said a company should simply have a good business plan— the word quality was gone.

What’s happening here? The improvement effort is not going away. It’s being renamed, and it’s becoming the foundation for all of our improvement activity.

Surveying Our Customers a Second Time

Last year we conducted a second survey to find out what topics we should offer at our Annual Conference in March. People told us that they wanted to talk to others who were making this work, in the trenches, and find out how they did it. They also told us that they wanted to hear from thought leaders, to get a sense of where we are heading. We discovered that there are many organizations that are working very hard and very successfully at process improvement.

You’ve probably heard about Six Sigma, and its use at Motorola and General Electric. This effort is expanding, and the excitement for this effort is growing, and Wall Street is investing money in companies who are getting into this activity.

Hoshin and strategic planning is increasing. Donnelly and Kodak are working on improving their Hoshin planning processes. General Motors is reenergizing its supplier program, looking at what their suppliers are doing in terms of basic improvement and planning.

Organizations are also looking at the difficulties that kept Total Quality from being totally successful. The VHA, the Voluntary Hospital Association, is leading the investigation of chaos and complexity theory and how it can help the health care industry in their struggles. Chaos and complexity is helping people think about a better way of creating a dynamic learning organization.

Ralph Stacey has put together a model that, in my opinion, does a pretty good job of explaining how chaos and complexity impact the way we run our organizations (see Figure 2). In any organization, he says, there are situations where there is a
high degree of certainty of what needs to be done, and a high degree of agreement on how it should be done. In these types of situations, traditional management works very well—we need to set up processes and structure, measure the right things, make decisions at the right level, eliminate stress and barriers, plan, analyze, command and control.

However, there are also unstable situations where there is a great deal of uncertainty of what needs to be done, and there is little agreement on how to get there. For example, the future of a health care organization may fall into this area, where people in the organization are unsure what the future holds for their business, and there is little agreement on what to do about it. This is the realm of chaos, and if you try to use traditional management here, it will not work very well at all.

In between these two extremes is an area called the “zone of creativity at the edge of chaos,” and this is where organizations learn how to deal with change in their company and industry. The key is to stay in this area, finding ways of moving forward, being creative, still using structure and planning tools, even though there are high degrees of uncertainty.

And finally, many companies are turning to creativity and innovation, because continuous improvement is not enough. This is an area that is particularly exciting to me, since I co-authored a new book on it last year called The Idea Edge. I’m very excited about creativity and the power it has in an organization.

Creativity and Innovation

Nine years ago GOAL/QPC began an investigation of creativity. The reason we did that was our customers’ struggles. Our customers were telling us that continuous improvement wasn’t fast enough. They were telling us that continuous improvement will not bring about the dramatic changes that were needed. Between 1990 and 1995, we saw dramatic downsizing in many U.S. companies.

The approaches that people were using were not getting results fast enough, so in desperation, they just started cutting their workforce. When people told us about the need for creativity and innovation, and asked us how to do it in a disciplined, tangible way, we began to investigate.

Gerry Nadler from USC has done some major work on Breakthrough Thinking, and we had Gerry visit us, and the principles that he had were very interesting.
But it was not the systematic approach that had been used so successfully in Total Quality.

I looked at the work of Edward DeBono, and saw some very helpful ideas. The seven thinking hats were being used by several companies at the time. But when I looked at that, in comparison to what we did with the Seven QC Tools, and the Seven MP Tools, it was significantly different in terms of being taught to the masses and being repeatable in any kind of disciplined way. I didn't feel it was enough to complement the work that we were doing in Total Quality.

So I went to the Creative Education Foundation in Buffalo. I attended some of their sessions, I read their books, and I talked to their people. Again, there were many creative people doing tremendous things in different industries, but I didn't find anything that had the same kind of discipline that we had been used to, that our customers were asking us for.

Then, about five years ago, I was in Germany giving a talk on Quality Function Deployment. I asked some people about what was happening with Creativity in Germany, and I heard about Dr. Helmut Schlicksupp from Heidelberg, who was teaching creativity to several large companies in Europe.

Helmut had worked with the Battelle Institute in the 1970s, a leading research organization working on creativity. They had gathered every creativity tool they could find, contacted companies from around Europe, asked for their toughest problems, and went to work on solving them.

They were able to solve most of those problems, and the companies responded by asking them to teach them the tools they used. Helmut developed the training materials, and for the last 20 years he has implemented and refined these tools. I said to myself, “Finally, I think we have found something that will make company-wide creativity as successful and effective as company-wide process improvement, problem solving and planning.”

**The Seven Creativity Tools**

The creativity tools developed by Helmut were refined over many years, and today we have the Seven Creativity Tools. They can be used for team and individual creativity, and they can help you improve planning and product development. This is not an article that only focuses on the creativity tools, but I think it may be useful if I present a brief description of the tools.

Heuristic Redefinition, the first tool, really deals with the issue of whether we are working on the right problem. It helps you to map out the problem area that you're working in, by redefining it. It helps you see the different elements and underlying structure of a problem. The tool involves drawing a symbolic picture of the problem and identifying the different parts of the system. The next step is to construct a prioritization matrix to select the one or two ways of looking at the
The second tool is Brainstorming. About 50 years ago, Alex Osborne wrote about his new idea called brainstorming. However, most of that has been forgotten today—what to do when there’s a lull in the conversation, how long should you keep the process going, how should the facilitator prepare so that all participants explore different directions that will bring successful ideas.

The process is improved by having a mix of people of different backgrounds, and at least a few experts in the area where the solution is most likely to be found. It’s important to let the process go on through at least three lulls in the conversation, with the facilitator allowing for silence, if they happen, and then leading a restart. Some of the best ideas are produced in the later rounds of a session, when more time is allowed for thinking.

The third tool is Brainwriting 635. It is a means of stimulating and gathering new ideas by writing them down, usually from teams of six people. It is done without conversation. Each person writes three ideas on a piece of paper and passes it to the person to their right. They read these ideas and add three more, perhaps triggered by the previous ideas. This continues around the group, until each person gets their original paper back. In short, six people write three ideas and pass it on five times. This approach allows for more thoughtfulness than a brainstorming session, and can generate 108 ideas in just 30 minutes.

Why use Brainwriting 635 instead of Brainstorming? Sometimes you might need to bring people together to solve a problem, but they are from different levels in the organization. I would venture to say that a person may hold back if their boss is there. This tool is also good for introspective, quiet people.

The fourth tool is Imaginary Brainstorming. This tool really gets us to a more advanced level of creativity, where we can manufacture ideas rather than just retrieve ideas that are fresh in our mind.

This tool stimulates idea generation by changing one element in brainstorm definition of a problem, generating more ideas in a brainstorming session, and then applying the new ideas back to the original problem. For example, a group may begin with brainstorming the issue of how to help employees feel comfortable using an Intranet to document their new product development process. You might come up with many ideas, most of which you have already heard before. But how about we changed things around, and used an imaginary brainstorm session to focus on a far-removed idea? We could use an imaginary problem, how to convince employees to wear red clown noses? We might start to have a little fun with this, and possibly break out of our old ways of thinking. Then we can take those ideas and bring them back to the original problem, to see if they are transferable.

The fifth tool is Word and Picture Association. We can take a look at pictures, words or inventions to stimulate our thinking. We could discuss what’s happening in a picture, and think about applying that to the problem. A group can look at some
photographs or images projected on a wall, and be asked what ideas they stimulate. Random words from lists or dictionaries can be used to trigger ideas that can be applied to a particular problem. These words, images and concepts can be used to stimulate ideas by simple analogy from inventions that share similar principles to the problem being worked on.

The sixth tool is TILM AG, sometimes called Advanced Analogies. This involves looking at examples of how other people solved similar problems. TILM AG gets into metaphors and analogies. You begin by defining the parameters of your ideal solution, which are then paired up in an association matrix. You then generate examples that include those paired parameters, and apply the principles of those examples to the original problem.

For example, suppose you want to make a dentist office more appealing to children. What are the parameters of the ideal solution you’re looking for? You might think of a happy place, where children can have fun. Well, Disney World is certainly a happy place where children have all sorts of fun. So what could you learn from Disney that you could apply to a dentist’s office? You could start by putting nice pictures on the walls to make the room look like a fun place. Maybe you could even put up cartoons, or even show them on a TV monitor.

The seventh tool is the Morphological Box. This tool is essentially a matrix that summarizes a systematic search for all possible solutions to a problem. You begin by defining the mutually exclusive parameters of the problem (rows of the matrix), and then identifying the options (columns of the matrix) for each parameter. By connecting one option from each parameter, and creatively combining them, you can decide on an optimal solution, which can then be refined.

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Hoshin Planning

Planning can essentially be broken down into four phases: Selecting the breakthrough; Aligning and deploying the plan; Implementing the plan; Reviewing and improving the plan.

I was talking to a small business owner recently, and she said to me, “Every year we put a lot of time into planning, but every year we come up with the same plan.” Well it seems to me that the creativity tools can be very helpful in breaking out of old patterns of thinking. One of the tools that comes to mind is the Morphological Box. The tool can be used to define parameters, look at different options, and combine them to create a different portfolio of products for the organization. Another component to this is looking at lines of evolution, which can help us think about the history of our products, and how we can follow that line and create new products and new patterns.

The second phase of planning is aligning and deploying the plan. Many times, top management develops the targets and means, middle management comes up
News & Views

with ideas on how they can implement them, and front line supervisors implement the plan. Easy, right? Well, in truth, it’s not that easy! Most of the time, top management selects strategic targets because they are important to do, and they haven’t been done yet, because they are hard to do. As we go down each level in the organization, it gets very hard to figure out how to translate those targets into daily work and implementation. That’s where creativity tools can really be useful. We can use simple tools to generate strategic targets, and use more advanced tools such as Imaginary Brainstorming or TILMAG to find ways to implement the strategy.

The third phase of planning is implementing the plan. This is often portrayed with a tree diagram, or objectives are listed in some way. The key is to identify gaps. For example, suppose we want to improve our sales growth by 20 percent. How would we do that? Let’s say 10 percent will come from improving sales of our existing products, and 10 percent will come from new products, and we’ll translate that into the details of individual products.

Then we must begin to implement this plan. Sometimes we’re ahead of plans, but I would say most of the time, we’re behind plans. If we’re behind, what can we do? If there is a review process, we’ll have to come up with ideas about how we’re going to get back on track. The reason that we’re off the plan isn’t because it’s easy—it’s because it’s hard. The creativity tools can help overcome this difficulty, and help us generate ideas about how we can do things differently to get back on track.

Finally, there is the reviewing and improving phase of planning. That involves looking at the plan on a yearly basis, and deciding what improvements we need. Again, we can look at the creativity tools to give us ideas in terms of process improvement.

Many of you have been involved in planning, and you know that it’s hard work. I think the creativity tools are going to be a real help in terms of improving this element of our Total Quality improvement effort. The tools will help us give each of our employees powerful ways to come up with ideas and plans that work.

New Product Development

New product development can be described in five steps, and the creativity tools can add value to each part of the process.

The first step is gathering the voice of the customer. You may be familiar with this wonderful diagram developed by Noriaki Kano, a noted Japanese quality expert (see Figure 3), that shows levels of customer needs and satisfaction. In this diagram, the vertical line shows how satisfied the customer is, from “truly satisfied” to “deeply dissatisfied.” The horizontal line shows how the customer’s needs are addressed, from “need is not met” to “need is completely met.”

We have three different options when it comes to meeting customer needs and providing high levels of customer satisfaction. Expected quality refers to something
that results in the customer being disappointed if it's missing, but indifferent if it's present. An example would be toilet paper in a hotel rest room. One-dimensional quality refers to something that results in the customer being satisfied when it's present, but dissatisfied when it's missing. Gas mileage in an automobile would be an example of this—if a car gets great mileage, we're happy, but if it gets terrible mileage, we're unhappy. Exciting quality refers to something that results in the customer is excited when it's present, but is indifferent when it's missing. These are things that the customer doesn't think about, things that the customer may have not recognized the need for yet. An example would be 3M's Post-it™ Notes, the self-stick note pads. This product wasn't requested by customers, but when a new adhesive was developed and applied to note paper, a new market and customer need was created.

How do the creativity tools relate to these three aspects? If you're looking for expected or one-dimensional quality, Brainstorming, Brainwriting, and the basic creativity tools will help. If you're looking for exciting quality, coming up with a product or service that hasn't yet existed, then you probably need more powerful tools: Imaginary Brainstorming, TILMAG, and Morphological Box. These tools help us almost manufacture ideas, create ideas that did not yet exist in our brain, and that can become the basis for real excitement for the customer.

The second phase of new product development is to identify and prioritize the characteristics, the things that we measure and control to see if we're meeting these customer needs. Over the years, I've found that in terms of working with Quality Function Deployment, a particular approach to new product development, finding these measures is not always easy. Many times, a company will take measures that already exist. The creativity tools can help in terms of generating new measures, or in looking at existing measures in different ways. They can help people break out of the way that we've been doing things before.

The third phase is improving a design concept. One of the tools that we use in new concept selection was developed by Stuart Pugh. Pugh created a matrix that listed all new concepts across the top, and all the measures down the side. The TILMAG chart creates a wonderful complement to that. We can take all the measures and create a matrix that will generate new concepts. It gives us a way to
enhance that part of the new development process.

The fourth phase is to eliminate engineering bottlenecks. It sounds easy. Do the most important changes up front, and solve the key engineering bottlenecks first, which will save time and cost over the long term. No problem, right? There is a problem! Sometimes we can’t figure out how to solve the engineering bottlenecks, and we end up making changes right up until, or even after, a new product launch. I believe the creativity tools will make it possible to solve more of these bottlenecks earlier, and I think that’s going to be really powerful in an organization in terms of saving time and cost.

The final phase is improving product and process reliability. Failure, Mode, and Effect Analysis (FMEA) is a process of identifying in a product or service, the likelihood that something will fail, the severity if it fails, and the detectability, the chances that you’ll catch the failure before it goes out of your organization. It gives all of those a weighted number, which is very precisely defined, multiplies those numbers together, and gives a risk priority number, which then is a priority for your reliability and proven activity.

The Morphological Box can be combined with FMEA to find out which solutions will give the greatest detectability? Which solutions will reduce the severity? As a result, you can make some major improvements in terms of reliability.

I hope this article has given you insights into how Total Quality is evolving, how we can make continuous improvement work, and how creativity can support that. I think that is something that all of our organizations can benefit from. People have agreed that creativity is important for quality; now we need to implement it, and I believe that these tools will improve our success rate. I hope you’ll have success in taking some of these ideas and applying them successfully in your organization.

Bob King is CEO and Chairman of GOAL/QPC. In the 1980s, Mr. King was a leader in researching and teaching advanced Japanese management methods in the United States. His clients have included IBM, Hewlett Packard, Procter & Gamble, Ford Motor Company, Philips, Intel, Bethesda Hospital and others. In 1997 he was awarded the Akao Prize for lifetime contribution to Quality Function Deployment (QFD). In the 1990s, Mr. King has focused his study on Creativity and Innovation, and how they can contribute to improved planning, problem solving and new product development. He is the author of a new book, The Idea Edge: Transforming Creative Thought into Organizational Excellence, which he co-authored with Helmut Schlicksupp. His previous two books are Better Designs in Half the Time, and Hoshin Planning: The Developmental Approach. He served as an examiner for the Malcolm Baldrige National Quality Award in 1989 and 1990.