Ongoing Discussion “Thought Piece”

*Transformation – You Can’t Do Just One Thing*

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Transformation – You Can’t Do Just One Thing
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If you go down to Hampton Roads or any other shipyard and look around for a shipbuilder, you will be disappointed. You will find—in abundance—welders, carpenters, foremen, engineers, and many other specialists, but no shipbuilders. True, the company executives may call themselves shipbuilders, but if you observe them at their work, you will see that it really consists of writing contracts, planning budgets, and other administrative activities. Clearly, they are not in any concrete sense building ships. In cold fact, a system is building ships, and the system is the shipbuilder.

— John Gall, Systemantics

My friend, Ian Bradbury, sent me the following story:

There was a company … Initially organized along functional lines (engineering, manufacturing, finance,…), they found that functional expertise was strong, but product integration and market/brand focus suffered. On the recommendation of consultants, they reorganized into product teams. This improved product integration and differentiation, at the cost of diluted functional expertise, duplication of functional resources, duplicated component design, … They reorganized by brand … Frustrated executives realized that they would see (apparent) improvement along the dimension by which they organized at the cost of suboptimization across other important dimensions of organizational performance. It was recommended that they try a matrix organization, but this brought decision making almost to a standstill. Maybe the answer to improved organizational performance was not visible on organization charts...

Managers engage in numerous efforts to improve organizational performance, but may not see the magnitude of improvement they would like. They may ask questions such as:

- We have made it clear that developing new markets is imperative, so why don’t we see more ideas for new products and services?
- Why is it so difficult to implement new initiatives?
- Why do people in different functions argue about the benefits of proposed changes?
- Why are engineers frustrated in their efforts to implement technical improvements in production?
- Why are our people not committed to the organization’s goals?
- Why do rewards not seem to produce the magnitude of improvements that we had hoped?

1 Ian S. Bradbury, personal communication.
Organizations need to change factors that seriously undermine their capabilities to survive and flourish. In the following, I will describe several factors that could be addressed to improve organizational performance. They are not accompanied by visual displays such as the organization chart, so they may be unrecognized. They include access to information, approaches to problem solving, actions for improvement, learning, rewards and control systems, policies and rules. All of these factors operate within a context of organizational and subunit cultures. They all affect organizational performance. A difficulty with them is that they are interdependent and just working on one will not be likely to achieve a desired transformation of the organization or improvement of the magnitude desired, but actions to address them can go a long way toward dealing with issues that lead to questions like the ones above.

**Information**

Who gets what information can influence the performance of an organization. A first step in improvement of information flows would be to identify the kinds of information that are relevant to particular kinds of jobs and to ensure that those kinds of information are available to people in those jobs. Making information on orders or sales available to all people in the production function may enable them to make better decisions about scheduling their activities and to have more engagement in their work. Sharing information on orders or sales throughout the supply chain can improve system-wide planning and performance. Up to date information on purchase orders, shipping, and overtime can help the financial function manage cash and debt. Routine monitoring of information collected on customers’ problems with products or services and customers’ questions can provide valuable information to improve design of the product or service and to improve information provided to customers about how to use the product or service. Scanning information in publicly available sources can provide valuable input to analysis of the competitive environment. Study of work is required to provide information that will be useful and used.

Some essential information can be acquired only by direct observation. An engineering group that never interacts directly with customers can be shielded from learning about customers’ problems with their designs and customers’ needs that are not being met. This lack of information cuts off an important input to innovation as well as affecting demand for products and services. Managers at higher levels in organizations may not learn about the effects of their policies on people who operate at lower levels. Members of the financial function may not appreciate the damage and waste that financial targets may create. Members of the sales force may not be made aware of the havoc they can create in the production function when they make unrealistic promises to customers. Likewise, members of the human resources function may not be made aware of the effects their commission system for sales people can have on fluctuations in orders and thereby on capacity demands on the production function.

Creating channels that can deliver appropriate information to the right places and ways to ensure that the information is recognized and understood has the potential to bring about improvement in performance. To make changes in information flows, efforts need to be made to develop cross-functional understanding of information needs and to reduce barriers between functions.
Problem Solving

Involving people on the front lines in problem solving enhances their well-being and their motivation to contribute. The Toyota Production System is an example of the use of this problem solving practice to great benefit. However, problems need to be solved at a higher level in the organization as well. Otherwise, the front line efforts can lead to what I call “solving the same problem in different clothes.” The following provide an example of this:

- One area works on a product failure and learns that the supplier for one important component has been changed.
- Another area works on a problem of leaky seals in the equipment and learns that purchasing found a cheaper source of seals.
- Another area works on failures of protective gloves and learns that a new supplier is being used to provide gloves.
- ... and so on.

It appears that common sources in all of these cases may lie in purchasing policies and practices. Unless those policies and practices are examined and appropriately addressed, more of the same problem will likely occur.

In his book, *Managing the Risks of Organizational Accidents*\(^2\), James Reason proposes a model for a regulatory process that “could be effective in limiting the occurrence of organizational accidents.” Indicators such as instances of deviations from safe working practices are generated by the site visits of front-line inspectors. The findings generate actions on the part of the regulated organization to correct the instances and deviations and on the part of the regulators to monitor rectification and to impose sanctions if necessary. But the model does not end there. In the next stage, “the basic elements... have been extended to identify the upstream organizational and managerial determinants of the local instances.” An organizational factor profile is created to show the relative cause for concern of each organizational and managerial factor. Then it becomes the organization’s responsibility to alter the factors identified in ways that will prevent non-compliance and unsafe working practices in the future.

A similar practice could be put into place to identify the organizational and managerial determinants of problems that occur at lower levels in any organization. In the example provided above, purchasing policies and purchasing practices would be two of the determinants that would then be examined and addressed in appropriate ways. This would be a far more effective use of organizational resources than “solving” numerous problems at the lowest levels of the organization created by the same sources at higher levels. However, it would be necessary to tend to the well-being and motivation of people on the front lines so that the benefits of having those people participate in solving problems would not be lost. Perhaps some of the slack could be taken up easily by engaging them in collaborative experimental ventures to redesign their production system for even more effective use of organizational resources.

Another issue that arises when problem solving is done primarily on the front lines is that the solvers may know little about the larger context. Their solutions will be constrained by what they know and these solutions may not be optimal for the organization. For example, a local team may come up with a way to fix a problem with a part that comes from a supplier when a better solution might be to work with the supplier to prevent the problem. (I recall how an executive was impressed with the speed with which an operator could make adjustments to the equipment when the incoming parts changed from those from one supplier to those from another. The company could make the parts internally, or they could purchase them from an external supplier. The parts obtained externally were far superior to the ones produced internally, but the production function was forced to use the internal parts as a portion of their input for political reasons.) People on the front lines learn to cope with the local situation, but the generators of future problems remain untouched.

If problem-solving teams consist of workers in the same area, the collective knowledge and skills the team brings to bear on a problem may be no greater than those of a single individual. A team of members that differ on one or more dimensions will “look for different things when they size up a problem. If people look for different things, when their observations are pooled they collectively see more than any one of them alone would see.” People working on the front lines may not know that they need the help of technical experts and so may not seek to obtain it. Likewise, they may not know that they need help from individuals in other functions or at higher levels in the organization.

In *Managing the Unexpected*, Weick and Sutcliffe write: “Teams composed of at least some individuals with different expertise are better able to grasp variations in their environments and to see specific changes that need to be made. They also are better at coping — especially when they think they have the capability to act on what they see. Moreover, generalist teams — teams that include at least some individuals who have had a broad range of experiences — are better at recombining existing knowledge, skills, and abilities into novel combinations. Because action and cognition are linked, as a team increases its capabilities for action it enhances the group’s capabilities to register and handle complexity. This diversity enables people to see different things when they view the ‘same’ event.”

If these issues of problem solving are not known and addressed, organizational resources can be used unwisely. Addressing these issues successfully will depend on improving the integration and cooperation among functions or units which in turn require changes in reward systems and controls. These will be discussed later.

**Actions for Improvement**

Large projects are often undertaken without sufficient exploration of the basis for believing the project will produce an improvement. Fads are prevalent in business, fed by the popular business press. A December, 2012 article in *The Atlantic* describes how many businesses jumped on the offshoring

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bandwagon to reduce labor costs without considering all the other costs associated with doing so.\(^5\) Now, companies are reversing that action. Numerous stories are told about failed IT projects to install ERP and other kinds of information systems. Company-wide compensation and performance appraisal systems imposed by human resources can produce unintended damaging effects.

In addition to the cost and waste associated with failed and misguided projects, there are also psychological effects that can affect future projects. In discussing management’s role in IT project failures, John Glaser writes, “Having an organizational track record with large projects that is less than stellar also contributes to failures. When similar initiatives have failed in the past... it can significantly undermine the credibility of the proposed initiative and help to ensure that organizational acceptance will be weak. People have very long memories and may even be thinking something like, ‘The same clowns who brought us that last fiasco are back with an even better idea.’”\(^6\)

Even when a history of project failures is not an issue, members of an organization can be unconvinced that a project is worth doing. Glaser writes, “Because the project will change the work life of many members and require that they participate in design and implementation, staff need to be sufficiently convinced that the project will improve their lives or is necessary if the organization is to thrive... If not convinced of the need for the project, they will resist it. When projects are viewed as lacking legitimacy by a large portion of the organization, they rarely succeed.”

To lower the risk associated with new initiatives, small scale tests offer an alternative approach. A single area of the organization can be selected to test a change or a single part of the change can be tested. This approach enables earlier learning about difficulties with the initiative that might come to light at much greater expense later on with the organization-wide approach. It also enables learning about enhancements to the initiative that could make it more beneficial. Marchand and Peppard write about a European electronics retailer that wanted to give iPads to sales personnel in its stores in order to provide product information that would be useful in the sales process.\(^7\) The company conducted experiments in which salespersons used various information layouts about products and various styles of presentation to communicate with customers. Learning which layouts appeared to work best lowered the risk of putting layouts in the hands of salespersons that would not be beneficial and reduced the potential future expense of having the iPads purchased for all sales personnel but not used and/or the expense of revisions to the software after deployment. Another benefit of small scale testing is to explore what kinds of training will be needed when the initiative is applied organization-wide and what aspects of the context need to be addressed to increase the likelihood that the initiative will be successful.

Another potential benefit of small scale testing is to reduce skepticism and resistance to change. When local examples that demonstrate the kinds of improvement that can be had by adopting a change are

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generated, people can see the value of the project more clearly and resistance can be lowered. Alternatively, failures in small scale tests can demonstrate that resistance was justified and enormous expense and disruption can be avoided. If there are disagreements about the potential benefits of a change among members of different functions or units, small scale testing can help to clarify potential benefits and change compliance with surreptitious resistance to a willingness to listen and try.

As with changes to problem solving, the willingness to adopt the practice of small scale testing depends on integration and cooperation among functions or units which in turn require changes in reward systems and controls.

Learning

Organizations face tremendous change in the environments in which they operate. Coping with change and making sustainable improvements require learning, adaptation and innovation. To have learning occur, an organization needs to have an internal environment that supports learning. An environment that supports learning provides safety for employees to speak up and to make mistakes without risking their careers. People are willing to offer their opinions and to explore the evidence and reasoning that supports those opinions. Ideas for improvement are welcome and given consideration. Recognition and support is given to employee improvement efforts. Information is willingly shared. Learning requires use of methods and principles that need to be taught and tried by employees. To have this happen requires a conscious effort on the part of management and change to reward systems and controls.

An investment in environmental scanning will pay dividends. There needs to be an ongoing, planned effort to learn about what is going on technologically and competitively. Much has been said in the past about benchmarking and identification of best practices. Both of these activities need to be done carefully. Methods and practices can depend for their efficacy on the context of application, so simply copying without careful examination of the context should be avoided. Small scale testing would improve the likelihood that any practices adopted would be beneficial.

Policies and Rules

Policies and rules govern repeated decision-making in organizations. They are indicative of the organization’s values and they impact how employees perceive the organization and its intentions toward them. Policies and rules can be formal or they can simply arise from practice. They can come about as a reaction to a single event without consideration of the potential effects of the policy on the system. Actual examples include a policy requiring random searches of employee belongings and vehicles as they exit company property and a policy requiring any employee who is absent for a funeral to bring a copy of the obituary to the company. A better approach would be to directly address exceptions rather than to incur the ongoing costs brought about by establishing a global policy. Policies and rules can contribute to conflict between departments and discourage teamwork.

Although formal policies can be easily examined for their consistency with the aims of the organization, it is more difficult to unearth and examine informal policies and rules that are imbedded in everyday work. Informal policies may develop as a result of systems of reward that encourage emphasis on short
term results. For example, the need to meet production targets can lead to an informal policy that substandard materials can be used if necessary, or an informal policy that customers should be gotten off the phone as quickly as possible. To make changing policies and rules effective in the long term requires addressing systems of reward and control.

**Reward Systems / Incentives**

I wrote about the effects of incentives in a paper published in 2010. In the paper, I argued that incentives designed to “improve performance” can have effects that are completely counter to what is intended. I will not repeat the content of that paper here. However, there is surely a need to carefully examine the behaviors that are actually promoted by reward systems to see whether there are unintended and undesirable consequences of rewards, including compensation systems. It is easy to desire one kind of behavior and reward another. Management can profess a concern for quality while systematically rewarding those who meet targets, regardless of quality. Management can talk about innovation and punish any kind of failure.

Recognition and celebration of accomplishments are much less likely to create negative effects than monetary rewards and can have very positive effects on morale and commitment. Accomplishments are achieved when the system enables them, so recognition and celebration should be focused on the accomplishments of the system as a whole. The system that celebrates its accomplishments can be the entire organization or individual units. Recognition of efforts under way to make improvements in the organization’s capabilities can help to encourage similar efforts. Systems of reward and control are interdependent. To produce sustainable improvement, both need to be addressed.

**Control Systems**

Charles O’Reilly writes “...what is a ‘control system’? A generic definition might be that a control system is ‘the knowledge that someone who knows and cares is paying close attention to what we do and can tell us when deviations are occurring. Although broad, this definition encompasses traditional formal control systems ranging from planning and budgeting systems to performance appraisals. According to this definition, control systems work when those who are monitored are aware that someone who matters, such as a boss or staff department, is paying attention and is likely to care when things aren’t going according to plan.”

I note that the ways control systems “work” may be unintended and may create damage. Typical forms of controls include required approvals, required documentation, standardized forms, and required reports. Managers call attention to what is important by their words and actions – an informal type of control system.

Control systems typically monitor behavior and/ or outcomes via measurements. Careful attention should be given to measurements because of the information they provide, but also because of the

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messages they send to the organization about what is important. If managers expect the attention of organizational members to change, then what is measured must change. Attempting to measure and report everything that might be important can create enormous waste. In one large organization, there were more than 1200 indicators that were routinely reported to the central administration each month. No one knew the costs associated with producing the reports or whether the information was used. In other organizations, measurements that could help people conduct and improve their work are not used.

Measurements are sometimes made to determine rewards such as incentives and commissions. The timing of these measurements can have damaging effects on performance. The authors of The Improvement Guide\(^\text{10}\) describe a case in which operating managers were penalized if their inventories were above targets on the last day of each quarter. As a result, inventory was moved around where it would be difficult to measure during the last week of the quarter. This case links multiple aspects of the organization that need work: the timing of measurements, the use of targets, and the use of rewards and penalties. The interpretation of measurements is also an area that needs examination and improvement. A simple comparison of actual with target each period is common and can be particularly destructive when that comparison forms the basis for rewards and punishments. It is far more informative to track measurements over time and interpret their fluctuations appropriately to avoid the waste generated by asking for explanations of changes from one period to the next or differences between actual and target.

When judgments of performance are made department by department over a short term horizon, the longer term effects of one department’s actions on other departments can go unrecognized. Managing each department as an independent enterprise without considering the effects of its actions on other parts of the organization may result in achievement of short-term performance goals – narrowly defined in terms of departmental indicators – to the detriment of the organization’s long term well-being.

Control systems are aimed at maintaining a status quo. They prompt action to return to an intended state, so the kinds of changes that occur in response to their signals are called First-order Changes – the system is not changed. Sustainable improvement requires change to the system – Second-order Change. The kinds of measurements and actions required to produce improvement are different from the ones that maintain the status quo.

Weick and Sutcliffe argue that “Most managers overdo control. They heap hierarchy on top of rules on top of routines on top of job descriptions on top of culture and then wonder why people feel constrained and put forth less than their best efforts. Consensus plus intensity focused on a handful of values is a powerful guide. And a sufficient one.”\(^\text{11}\) A review of the organization’s controls can result in identifying opportunities to reduce overdone controls and to identify measurements that can be used beneficially to manage and to improve.

\(^{11}\) Weick and Sutcliffe, Managing the Unexpected.
Culture

Edgar Schein defines culture as “the set of shared, taken-for-granted implicit assumptions that a group holds and that determines how it perceives, thinks about, and reacts to its various environments.”

Organizations have an overall culture, but there are also subcultures in an organization. Schein has identified three different subcultures that operate in organizations: (1) the culture of the line managers and workers that produce the products and services the organization provides; (2) the culture of the group that designs and monitors the core technology that underlies what the organization does (Schein calls these the engineers, although they could be scientists or members of another discipline that fills the same kind of role in other organizations); and (3) the executives. Schein argues that if organizations expect to survive, they must build their capacity to learn and organizations may never be reliable learning systems unless they reconcile the conflict between these cultures. It isn’t clear where human resources or accounting personnel, for example, would belong in Schein’s three cultures. These kinds of groups can have assumptions and world views that conflict with the members of the producers’ and designers’ cultures.

Schein also identifies hierarchy-based subcultures that he argues are more devastating in their effects than the ones defined by roles. He says “how much power and autonomy one has colors very much what things mean... Evidence that different strata have different subcultures comes from the frequent complaint one hears from CEOs that, even though they have a lot of power and authority, they have great difficulty getting their programs implemented. They complain that things are not understood, that goals seem to change as they get communicated down the hierarchy, or that their subordinates ‘screw up’ because they don’t really understand what is wanted. This often leads CEOs to mass communication ... where visions are shared with everyone simultaneously. In spite of these efforts, people still hear very different things ...” Weick and Sutcliffe observe that cultures that are more deferential to hierarchy are “less informed by frontline experience and ... more informed by inputs that are colored by hierarchical dynamics such as uncertainty absorption and withholding bad news.” Identifying the assumptions of different subcultures, exploring their sources and implications, and understanding their consequences have the potential to improve cross-cultural understanding and cooperation.

Functional/Unit Segregation

Among Deming’s Fourteen Points is Point 9: Break down barriers between departments. Surely, it is insufficient to issue an edict saying “you will work together” when goals, rewards, and other factors such as cultural conflict, lack of information, skills and methods work against working together.

In a book published more than fifty years ago, March and Simon discussed “the tendency of members of an organizational unit to evaluate action only in terms of subgoals, even when these are in conflict with

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14 Weick and Sutcliffe, Managing the Unexpected.
the goals of the larger organization.” They were talking about suboptimization although they didn’t use the term. They identified three mechanisms that reinforce this behavior: (1) individual reinforcement through selective perception and rationalization; (2) unit reinforcement through the content of in-group communication; and (3) selective exposure to environmental stimuli. Even at the time of the publication of Organizations, it was well known that individuals have a tendency to filter out information that is inconsistent with their mental models. March and Simon observed that “the vast bulk of our knowledge of fact is not gained through direct perception but through the second-hand, third-hand, and nth-hand reports of the perceptions of others, transmitted through the channels of social communication. Since these perceptions have already been filtered by one or more communicators, most of whom have frames of reference similar to our own, the reports are generally consonant with the filtered reports of our own perceptions, and serve to reinforce [each other].” They observed that there are two principal types of in-groups that are significant in filtering: members of the same organizational unit; and members in a common profession. Since most organizations are organized functionally, the professional membership and the unit membership may serve to reinforce one another. Selective exposure to environmental stimuli occurs because of organizational structure as well. As March and Simon observed, “salesmen live in an environment of customers; company treasurers in an environment of bankers; each sees a quite distinct part of the world.”

To move work toward the aims of the organization as a whole, an integration of perceptions across functional or other units would be desirable, and the question is how to achieve that. Although changing the structure of reporting relationships may be the first option that comes to mind, it seems that other kinds of efforts might come closer to dealing with the ways people tend to see – the cognitive, cultural aspects of segregation. Learning activities focused on identifying and examining the assumptions that are made by members of different professions or on seeing the external environment in the way that different professions or units see it could help to increase integration. Schein argues that the impact of subcultures on language and mental models must be taken seriously and that “one of the most pressing needs” in organizations is the need for dialogue across subcultural boundaries. I worked with an organization that conducted what they called “diagonal slices.” These were conversations among employees at different levels and in different functions that were regularly scheduled to discuss issues in the organization. This was an attempt to accomplish the kind of learning that Schein advocates. Of course, how to accomplish dialogues and other learning activities in the environment of overwork that exists in most organizations is a difficult question. Achieving greater integration would likely reduce the amount of overwork and so one could argue that such efforts would more than pay for themselves. It might be a good idea to conduct some small scale tests of different approaches to integration.

Efforts to achieve greater integration would need to be accompanied by efforts to focus attention on overall organizational aims.

16 Schein, “On Culture, Dialogue and Organizational Learning.”
Conflict

Lawrence and Lorsch published a book about the fit between an organization and its environment. They observed that organizations became segmented into units, each of which dealt with a part of the conditions outside the organization – sales dealt with customers and markets; production dealt with equipment sources, suppliers of materials, and labor markets; accounting and finance dealt with governments and investors; design dealt with the science and technology needed to produce the organization’s products and services. This division of labor – differentiation – came as a result of the limited span of surveillance and knowledge of any one group of managers. The members of each unit would become specialists in dealing with their particular tasks. As a result of specialization and because of prior education and experience, members of a unit would develop specialized working styles and mental processes. Lawrence and Lorsch also observed that the demands of the environment required the units to achieve unity of effort by collaboration among the differentiated units – integration. Because the members of each unit developed different interests and points of view, they would find it difficult to reach agreement on integrated action. Their primary question was, then, “how can integration be facilitated without sacrificing the needed differentiation?”

Lawrence and Lorsch took the position that the need for differentiated “ways of working and points of view” in various units makes recurring conflict inevitable. According to Lax and Sebenius, “increased interdependence of diverse people virtually guarantees the potential for conflict.” This is a different view than the popular one that conflict should not exist, so the primary work to be done is to eliminate conflict altogether. Lax and Sebenius go on to say, “some people resist the fact that conflict pervades organizations, judging it to be unhealthy or threatening... Uncomfortable as it may be to some, conflict is a fact of life in organizations. Destructively handling it, however, need not be.”

The ideas and methods of effective negotiation have been under development for several decades. Much of the work on negotiation has been done by people affiliated with the law and business schools at Harvard. The aim of effective negotiation has been to produce agreements that meet the interests of the negotiating parties to the extent possible, resolve conflicting interests fairly, are durable, and take community interests into account. Effective negotiation is seen as an alternative to positional bargaining which can lead to continuing conflict and shattered relationships – just what an organization does not need to create. Successful negotiation is likely to require much less time and energy than positional bargaining and so is more efficient. Work on developing cross-cultural understanding needs to be done to make negotiation to resolve inevitable conflict more effective. To be able to negotiate effectively within the organization and with external parties opens up opportunities for improvement, so organizations should consider developing expertise in negotiation.

The diagram below is an attempt to illustrate some of the interdependencies that exist among the organizational factors discussed above. Arrows indicate the direction of influence. Colors are used only to distinguish between arrows that cross. The diagram illustrates the complexity of influences among the aspects of the organization that can affect improved performance. Addressing the areas that are less controversial, such as improving information flows and introducing small-scale testing, would build useful experience to enable work in more controversial areas.

Communication by Management

If management communicates consistently and their communications reflect the stated aims and values of the organization, organizational members may develop consistent expectations about what is important. But action is also communication. Every move by management communicates to employees about what is important and about the principles and values of the organization. Managers need to model the behaviors they expect of organizational members. If managers expect development of cross-cultural understanding, they need to ask questions about assumptions and encourage the exploration of multiple viewpoints. If they expect learning, they need to acknowledge their own limitations with respect to knowledge, engage in learning and model what they expect by listening carefully and asking respectful questions that encourage learning.

Not Just the Organization Chart

The organization chart is a primary business icon. The organization chart is visible; many of the more important factors that affect organizational performance are not. Improving information flows, improving problem solving and learning, developing constructive interactions between individuals and units, using negotiation to manage conflict, communication and modeling by management, revamping rewards and controls and developing a culture that enables improvement are some of the organizational aspects that deserve far more attention than reporting relationships.
**Biography**

Gipsie Ranney is an international consultant to organizations on management, quality improvement and statistical methodology. She was a member of the faculty of the Department of Statistics at the University of Tennessee, Knoxville for fifteen years. She was a co-founder of the University of Tennessee’s Institute for Productivity through Quality, and she developed and conducted numerous seminars on quality improvement. She served as Director of Statistical Methodology for General Motors Powertrain Group from 1988 to 1992. She co-authored *Beyond Total Quality Management: Toward the Emerging Paradigm*, published by McGraw-Hill, and contributed to *Competing Globally Through Customer Value*, published by Quorum. She has published papers on quality improvement and statistical methods. The American Society for Quality awarded her the Deming Medal for 1996, “for outstanding contribution in advancing the theory and practice of statistical thinking to the management of enterprises worldwide.” Gipsie holds a B. S. in Mathematics from Duke University and a Ph.D. in Statistics from North Carolina State University.