PEOPLE COME FIRST

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Here we are at the beginning of a new century armed with exciting, marvelous new technology that will surely make the twenty-first century very different from the twentieth. It will be different. Just how it will be different depends on how we go about using our new technology. If we use it for the benefit of mankind, building quality of life and raising standard of living, we will have an exciting and prosperous twenty-first century. If, however, we use it to feather the nests of an elite who control this technology we will achieve very little of the potential of this technology.

This is very reminiscent of the situation that existed a century ago. There was marvelous, exciting new technology then as well. It was called scientific management and it was about to change the quality of life and standard of living of people throughout the industrial world. At that time, a meeting was held in New England of the pioneers of scientific management who spoke about their techniques much as we will be talking about ours over the next two days.

Frank Gilbreth, the father of motion economy was in that group and he brought his wife, Lillian, with him. She had a doctorate in Industrial Psychology and worked very closely with him. As this meeting was winding down, one of the speakers, noting that Lillian was the only woman in the group, invited her comments. Lillian stood and commented that while she had listened with enthusiasm to their exciting descriptions of their technology, she had not heard them talk about people and she wanted to encourage them to bring a focus on people into their efforts at work improvement. That comment helped the pioneers of scientific management to adopt a statement for a philosophy of scientific management that read as follows: “We will utilize the resources of nature and of human nature for the benefit of mankind.” And, many of them followed that course.

Now it is a century later. Certainly all of the efforts at scientific management were not undertaken for the benefit of mankind. In fact there have been many who have used the techniques in an abusive way. But, there have also been many who used the techniques as the pioneers had intended them and mankind has benefited enormously.

Frank Gilbreth died in 1924 but Lillian continued their joint work for over forty years to the advantage of a great many people throughout the industrial world. She brought to the work a balance between the development of methods and systems and the simultaneous development of our people. I had the distinct pleasure of working with her during the last six of those years and knew her as the healthiest human being I have known. (And, those are not only the words of a friend. This friend happens to have a doctorate in behavioral science.)

I worked with Lillian at many conferences and recall that she often got on the subject of “top down improvement”. Her views on this subject were very clear. She described top down improvement as enabling organizations to build beautiful, clean, simple systems that are wonderful in every way except one - they don’t work! The focus of her teaching was on building healthy organizations where senior management provides the vision and direction that guides the organization, drawing the strengths of its people in harmonious directions and where improvement comes from the bottom up!

Essentially, improvement comes from reality and the people who are at the grass roots of the organization are in direct and continuous contact with that reality. Viewed from the perspective of behavioral science, when an individual performs in such a way that he or she gives the impression of being out of touch with reality we describe that behavior as "nuts". That is what insanity is all about - being out of touch with reality.

On the other hand, when organizational decisions that determine how people will perform their work are made by people who are operating at a considerable distance from reality we don't refer to these organizations as insane, although the label would fit. We call this bureaucracy. We are hurt by it. We complain about it. We put up with it. And, we should not! Instead, we should master the realities of our organizations and the best way of doing that is by involving the folks who live with that reality. There are employees there who have been in constant contact with that reality for forty hours a week for years and who know that reality with a depth of understanding that goes far beyond anything that a consultant or an analyst can get by gathering information about that work.

After Frank Gilbreth's death, Lillian worked with a young industrial engineer named Allan Mogensen. "Mogy" learned the techniques of scientific management at Cornell and went on from there to teach them at the University of Rochester. Then he left teaching to try his hand at consulting and saw things that led him to popularize the improvement techniques by putting them into the hands of the people doing the work.

For instance, while working on a consulting assignment at the Remington Arms Company he was approached by a foreman with the comment, "I've been making guns all my life. What the hell does a young college professor have to tell me about making guns?" Many young MBA's are hearing similar questions today and few can come up with answers as good as Mogy did. Mogy, who had a deep respect for the knowledge of people doing work, answered the foreman roughly as follows. "I don't know a damn thing about making guns. I've never made a gun in my life. They didn't bring me in here because I know anything about making guns. They brought me in because I know how to study work and here is what I am planning to do. I'm going to make a flow process chart for each of the parts that make up the gun. These charts will show, step by step, how the part is made." Then he showed the foreman a flow process chart and before long they came to an agreement that the foreman would make a chart. It only took a few minutes for Mogy to teach him how to do it.

They chose a single part from a bolt action rifle. It was a spring located in the bolt. The foreman agreed that he would make a chart that showed the steps they went through to make it, starting with wire and following it through the various coiling, cutting and treating operations until they got to the finished spring. Mogy came back a few days later, hoping the chart had been made, and this is what he heard from the foreman. "Yes I made the chart and I found out we were doing some dumb stupid things that I didn't realize we were doing so we're fixing them. And, by the way we're already charting the rest of the parts."

Mogensen discovered, over and over again, that if you put the tools of improvement into the hands of people who really know what is going on, good things happen fast. And, he passed that message on enthusiastically for over fifty years to the enormous advantage of many companies. Here is a quote from Alan Mogensen. "The person doing the job knows more about it than anyone else in the world and is therefore the one person best fitted to improve it."

In 1944 Mogy trained a young engineer by the name of Art Spinanger who came to his "Work Simplification" Conference from a small soap company in Cincinnati. Art learned the techniques and took them back to Procter and Gamble and put them into the hands of employees who got a couple of projects going. He didn't come back armed with techniques and ready to show the dummies how to do their work. Nor was he trying to impress management by showing them how he could help them to get rid of a few employees. Instead he gave P & G employees a chance to improve their own work. The initial projects generated enough benefits so that P & G decided to stay with the effort.

Forty year later when Tom Peters and Bob Waterman published their best seller, "In Search of Excellence", P & G was one of the excellent companies. That year P & G generated new first year savings, based on the ideas of their employees, of $900,000,000. That is almost a billion dollars in productivity gains in one year by one company. That little soap company had grown to be the dominant company in its industry, world wide. And, they did it with people!

People! That is what makes excellent companies. Over the years, while many companies have engaged in cutthroat practices with their people, there have been some who have patiently worked with their people establishing and maintaining a culture where people grow the way they are supposed to grow to become mature responsible adults fixing things that go wrong and enthusiastic and proud of their contributions to their excellent organizations.

My father attended the same 1944 workshop that Art Spinanger attended but he came to Work Simplification a little differently than the rest of the people at that workshop. While the rest of the delegates came from manufacturing companies and would be applying the techniques of work simplification to cutting metal and assembling products in their factories, my father's work had been with insurance and business forms. He would be attempting to apply the techniques to information processing.

The techniques that my father learned were being used very effectively with factory work. As he attempted to apply them to information processing he found that some of them did not apply and others, with modification, worked quite well. And, he found one technique, Frank Gilbreth's simple flow process chart that led to his development of the Graham method of process flow charting. Frank Gilbreth's chart was a single page with symbols down one side that was used to follow the flow of one item. My father adapted it to accommodate multiple items and clearly show the interrelations between the items. This gave us, for the first time, a rigorous engineering method for charting and analyzing work processes of every sort, manufacturing, information, manual, electronic, etc. and it is in use today around the world.

Unfortunately, rigorous engineering methodology can shift people's thinking toward the use of experts and top-down improvement which undermines the power of the Work Simplification approach. This is a mistake. The proper use of Graham process chart is and always has been with teams of operating personnel who know the work firsthand. In fact I would like to share with you a quote of my father's written in 1958. I was a young man at that time, starting my career and getting into work improvement on the coattails of my father. I was working on a project when he wrote me a letter including some fatherly advice as follows. "Participation by the workers in developing the method eliminates many causes of resistance and insures enthusiastic acceptance. This is more important than all the techniques put together."

I suggest that regardless of the power of any new techniques that may be at your disposal, it is still true! As new techniques become available they can be so impressive that we tend to forget. A new technique may carry us so far beyond what was previously available that we give up on people and depend instead on the technique. Let me suggest a quote from another teacher of mine, whom I admire very much. This man taught administration roughly 2,500 years ago, Confucius. "Man can make system great. It isn't system that makes man great." It was true then. I contend it is just as true today.

And, this brings me to the central theme of this address: people! I would like now to discuss the value of the experience of people doing work. As people experience the realities of their work they develop extremely valuable common sense. If we want to incorporate common sense into the marvelous new systems that we are developing it is important that we understand enough about common sense to know where to find it. So, what is common sense and how do we get it?

First of all common sense is not something that people are born with. At birth we are completely helpless, dependent and devoid of anything that could be described as common sense. But, soon that beautiful new human being begins to pick up data and learns how to get around. Eventually people accumulate enough experience to be able to anticipate, to move about comfortably and flexibly and effectively in the environments in which they have gained their experience. The root of the matter is that common sense comes from experience and therefore it is appropriate for the environments in which it is gathered. This is a vital fundamental for managing and improving systems.

The body of common sense of a tribe of hunters is quite different from that of a group of farmers. My doctoral work was done in air traffic control and I assure you that the common sense of the air traffic controllers at the Los Angeles Airport is very different from that of people doing other work. Common sense is the difference between muddling through and getting things done smoothly and effectively. And, it includes intuitive skill. And, what is intuitive skill?

Have you ever wondered how you and others are able to remember the lyrics of so many songs? The hooks that get us to the words are in the tune and the rhythm. Once the song starts the words simply come forth, as needed. Likewise, people in all lines of work, from file clerks to neuro-surgeons, develop intuitive skills that enable them to come up with what they need when they need it. Here is an example of a set of these skills and how they are gained.

A young man drops out of high school at age sixteen or seventeen. He loves driving a car, gets work as a cab driver and stays with it. Now we pick him up at age thirty. He has been driving in the same city for thirteen or fourteen years. He has learned the streets of his city by driving them. He knows thousands of streets. He knows them by name and he can see them as well. He carries in his head pictures of buildings, trees, signs, intersections, etc. In addition he knows the timing of the lights on most of the major streets. As he is driving he knows just when he needs to speed up a bit to make a light. And, this is not a matter of conscious, logical calculation. The information about the streets comes to him as he needs it just as the words of a song. (Is it surprising that a cab driver would know the timing of the street lights? In fact most people learn the timing of a few lights, not by studying them but by using the streets.)

The cab driver also knows the driving patterns around the hotels, throughout the entertainment areas, the airport, and the hospitals. He knows the timing of different

areas of traffic congestion. He knows where the difficult intersections are. He even knows pot holes. And, this man is certainly not the epitome of knowledge or education in our society. He is a cab driver with a limited education and a good mind who has developed intuitive skills that permit him to, literally, sing the song of his city.

The message behind this discussion is that we have people throughout our organizations who have knowledge equivalent to the knowledge of a city. They work in the inventory department, in customer relations, in product design, etc. and these are the operating people whose common sense belongs in our marvelous new systems. They are not a bunch of donkeys to be discarded as an unnecessary expense. They are, as they have been, the most valuable resource in the organization and when treated as such they can provide an organization with a force for excellence that goes far beyond our techniques, marvelous as they may be.

However, even when we recognize the importance of making use of the in depth knowledge of employees, many questions remain about how to do it. For instance, if all we did was to turn the challenge of change over to our employees, tell them they are empowered and ask them to do whatever they think is best, we would invite chaos. The effort must be organized. The work of the people throughout our organizations today is far too interdependent to suspect that we can have acceptable results with everyone simply doing their best.

Instead, we organize the effort around a chart. The chart shows the work, step by step, for each of the items of the process and shows how the items are interrelated. Then we put experienced people in front of the chart and work through it one step at a time. By taking it one step at a time the team members avoid getting off into theoretical abstractions and political concerns. They are able to wrestle with reality and come up with better ways of doing whatever happens to be the objective of the process. They are encouraged not to look for sweeping solutions but to concentrate on their greatest strength, their firsthand experience which gives them especially valuable common sense.

In this way we set the stage for people to work together. Most of the time people fall right into doing this, it seems wholesome and natural, and they do it well. And, we have also set the stage for them to use their minds the way they were designed to be used, concentrating on one thing at a time, moving on to the next thing and staying with it until the whole has been attended to. The chart, of course, does not produce the solution. It simply serves as a reminder of the steps, a picture of reality that keeps the steps of the process visible while the employees apply their intuitive wisdom. And, we mustn't give up on their intuitive wisdom.

There is a conversation of mankind that welcomes us all. We should treasure that conversation. It is the conversation of generations where each generation does its best and then passes on what is known to the next to carry farther. In this conversation, generations don't have to be twenty or twenty-five years. They can be four or five years. But regardless of the span, the conversation is crucial.

Unfortunately, there is a tendency on the part of new generations to weary of the conversation. "Don't bother me with all that stuff. I'd rather figure it out for myself." Simultaneously, new generations, lacking experience tend to accept superficial knowledge as complete. The less we know about something the simpler it seems. Thus it always seems there are people eager and ready to substitute something that is impressive and new for what has been tried and true. When this is mandated by people in authority, from the top down, much is lost.

Our challenge is to advance technology brilliantly and simultaneously to incorporate the intuitive wisdom of our people. If we do it well we can expect results like those I saw at the Bureau of drugs in Washington DC where medical doctors, pharmacologists, chemists, toxicologists, administrative and clerical employees working with charts on project teams successfully eliminated 85% of the documentation in the main mission of their operations. The study took them fifteen weeks and they estimated approximately one million dollars in productivity benefits. This, of course, was done in the U.S. Federal Government. If it can be done there, private industry should be ashamed if they cannot do as well.

This message has been about people. People come first. If we will support the intuitive genius of our people with the marvelous new advancements in workflow we will see delightful improvements in standard of living and quality of life. If, however, we abandon our people as we advance technologically we will make technology the enemy of the people. Then little of the potential of the technology will be achieved.

We are currently in the process of building a professional society. There are currently more professionals in the U.S. and Canadian labor forces than any other category and I am sure the situation is similar throughout the industrial world. A professional society cannot work without trust. Yet the current situation in the work world appears to be one of declining trust, people constantly looking over their shoulders, distrusting their managements and distrusting anything associated with corporate redesign.

We have an enormous challenge. The challenge is to deserve the trust of the work force. We need to maintain it if we still have it and win it back if we have lost it. Then we will be able to turn the marvels of workflow technology to the benefit of mankind.