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TOTAL QUALITY MANAGEMENT: CAN EDUCATION AFFORD TO IGNORE IT?

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World competition has dramatically altered the way American business enterprises are re-organizing and restructuring themselves in order to meet the challenges of international competition. Changes have come in the ways in which the workplace is organized, the interaction between "bosses:" and "workers", the flow of information, the relationships among companies within a specific product area and many other aspects of the business workplace which is dramatically changed as a result of the rise of industrial competition from Europe, the Asia-Pacific Rim and Latin American countries. The concept of *free trade* as defined by the World Trade Organization and regional trade partnerships such as NAFTA have added to the pressure on American business to maintain its competitive position or lose market share.

American business has responded to the challenge even though it has dramatically altered the way in which management interacts with staff, the patterns of interaction within units and among units, the focus on profit centers, the elimination of product lines that do not turn a profit (core competencies), the elimination of multi-layered administrative structures and employee stock option plans that reduce the high cost executive staff. Corporations which in the past that did not lay-off staff, i.e. American Telephone and Telegraph and IBM have shed thousands of middle level employees in order to re-establish their competitiveness in the rapidly changing fields of electronics and tele-communications.

As a result the old order simply does not hold true in today's highly competitive markets and all members of the organization from the production workers through senior management have learned how to cooperate and *work smart*. Working smart is far different from simply viewing one's job as adding an element to production or the processing of the paper flow within an organization. Management has turned to workers for crucial input into the decision-making process through the use of various teaming activities. But one cannot

stop with teaming because they can become an end in themselves rather than as a means to improve the way in which the organization achieves its goals.

Initial attempts with the introduction of Total Quality Management and Quality Circles did nothing to turn industry around because the process was focused on the lowest level of the administration and the production workers. Middle and upper management people did not become involved and the various schemes became an end in themselves.

As the concept of Quality has evolved and given rise to the concept of the team and team building, all members share in the successes of each other and that of the team's successes. We have come to recognize that the collective wisdom of the team is greater than the wisdom of individual team members working as individuals. A well functioning team in which employees and administrators interact with one another has contributed to many success stories in business and industry. It is recognized by many persons in leadership positions within business and industry that today's organizations must create the scenario where management and the workforce interact with each other, create an environment in which all are encouraged to *work smart* and produce a quality product that people want and are willing to pay for.

The question that is readily obvious to you and me in the education field is: "How does this relate to me as I work in a school, not an industrial or business setting?"

Many of the factors that business and industry faced in the 80s are being faced by educators in the 90s. In a typical school there is not much interaction between principals and teachers except when the principal is carrying out his or her supervisory responsibilities. Although we encourage cooperation among children in the early grades, we gradually replace it with competition as they progress through school. By the same token we promote competition among teachers, be they in charge of a separate classroom or the members of a grade team.

I have just concluded a two-year assignment in Asia and have come to note that foreign colleagues who are willing to enroll their children in international schools, many of which are decidedly American in staff and program, would not enroll their children in US public schools despite the similarities including IB and Advanced Placement programs. By the same token, these same parents have no hesitation about sending their children to American colleges and universities. The perception of American public schools outside of the US is a negative one and seldom are exceptions cited.

The question is not so much what happened as it is how can we correct the problem and restore the luster to American Public Education?

The Answer is Total Quality Management (TQM)

When one thinks of TQM, one's mind immediately focuses on W. Edwards Deming, the American most closely associated with the movement and one of the guiding management gurus behind the rise of Japanese industry from a symbol for cheap and low quality exports into one of world leadership in quality. Although in the final years of his life, Deming turned his attention to the education sector, most of his writing focused on business and industry. In one of several statements he made about American education Deming identified nine factors that he felt contributed to the decline in American business and were similarly applicable to American education. (Deming, 1991)

This paper addresses these nine points and it is clear that senior administrators of schools must address and resolve them prior to the introduction of TQM. One might refer to it as the preliminary stage of the process, but none the less, it is a necessary stage if you are to successfully introduce TQM to your school or district.

Deming cited the following nine items as contributing factors to the big losses in American industry:

1. The Merit System
2. Management by Objectives
3. Use of Quotas
4. Plans that Utilize a Matrix of Targets
5. Ineffective In-service
6. Lack of Profound Knowledge by Executives
7. Tampering
8. Failure to Optimize the Efforts of People and Divisions
9. Failure of Customers and Supplier to Work Together

1. The Merit System

A great deal of attention has been focused on the use of merit systems as a means to improve education since the publication of *A Nation at Risk* (1984). The concept of a merit plan whereby teachers who perform at meritorious levels of service receive salary supplements maybe commendable in theory but have not achieved notable success in public schools. Part of the problem may lie in the inability or unwillingness for educators to define "meritorious service:" in terms of student performance due to major differences among and between groups of children. It is still evident that "student inputs", i.e. the characteristics of students entering a grade, are mostly responsible for "student outcomes", i.e. their grades and performance in tests (NAEP, 1997).

Another part of the problem resides in the costs involved in seriously undertaking a merit plan. South Carolina implemented a state wide merit system as part of an overall legislative package in 1984 to improve public education within the State. In the final analysis "merit" became defined in terms of activities that were tangential to student learning and the substance of the teaching process. Subsequently the plan was discarded in the early 1990s as an economy measure.

Merit systems are often prostituted by biased administrators. Teaching excellence, when it comes from a teacher who is not part of the inner circle, is often ignored. The rewards of better assignments, being chosen to attend the conference, etc, are not often given to those who perform well but to those who support the administrator's political line.

2. Management by Objectives

Annual workplans whereby administrators and in some cases – teachers, identify and establish goals that are to be achieved during a set time period is a well accepted practice in most school operations. A fundamental problem with MBO is the fact that the objectives become an end in themselves rather than an overall goal of improved practice and student success. Consequently we measure success by the degree to which an individual has implemented specific items: a mobile science cart for each primary grade, student on-time arrival at the 95th percentile, teacher attendance at the 95th percentile and other so-called "indicators of success." Evaluators are able to count specific items: the number of books

delivered, the number of science carts delivered etc. but the vision of the district or school staff is diffused and the focus is on the pieces of the whole rather than on the success of the students. Just as American businesses learned that the public wanted quality built into the products they purchased, so too must the schools learn the same lesson. Although many schools provide a high achievement education for their students, the image of American education held by many within our population (perceived quality by the client) more closely parallels the ineffective schools described in *Savage Inequalities in American Schools* (Kozol, 1991). At the time he completed his survey of the schools that formed the basis of the book, he found that many schools had not changed much from his initial survey of 25 years ago which formed the basis of *Death at An Early Age* (Kozol, 1963). The fact that the schools described by Kozol do exist and are tolerated by the educational establishment detracts from the accomplishments of much of the system. It is obvious that our current view that "some failure is to be expected and tolerated:" does not work to satisfy the needs of students and the wishes of parents and taxpayers.

3. Use of Quotas

Although the use of quotas is primarily a business phenomenon (whereby sales quotas are established or business contacts completed), we in Education also utilize quotas. An experimental program or school which is designed to meet specific needs of some children must meet certain enrollment goals on an annual basis in order to survive. We have similar quotas in the number of student enrollees in specific classes and we make decisions about the offering of French IV or Physics II on meeting enrollment quotas (also called goals) rather than on the maintenance of a balanced educational program for all students. In some classes the quotas may be informal and applied on an *ad hominum* basis. In other instances they may be very specific and public, i.e., the number of teacher enrollees in order for the school to sponsor a specific in-service course that is aligned with program improvement efforts.

4. Plans that Utilize a Matrix of Targets

Although the concept of *Total Quality Management* has been a driving force in American business since its introduction to the US in the late 1970s, its initial introduction was not characterized by success. It was only after management learned that it was not so much something you did to workers but rather it was a *system* to improve the management of the organization, that organizations which were utilizing TQM began to achieve success. Similarly, we in Education must learn that when our leadership and management and their system of work is flawed, the schools for which we have administrative responsibility will be similarly flawed. But before we can fly the flag of TQM over our district and school buildings, we must recognize there is no magic wand but rather hard work ahead.

The planning process, whether it is applied to a specific business or industry or to a school system or a specific school requires the development of plans to achieve a win-win system of work. The critical phase of the planning process is the amalgamation of the various sub-plans into a cohesive plan for the organization as a whole. If a sub-unit of the school or system is permitted to operate at odds with the over-all goals of the organization, we create a no-win situation and everybody loses. Organizations, be they schools or businesses, must be looked at as a whole system. How often we forget that! There is a time and place for recognition of an individual who makes an outstanding contribution to the success of the team in achieving its win. It must be remembered however that the "Outstanding Player Award" seldom goes to a member of the losing team.

5. Worker Training Worker

Cooperative learning—a student teaching another—has a long and distinguished record in American public education beginning with the rural school. It is a method that is still espoused by experts in pedagogy. Cooperative learning however, does not mean a “pooling of ignorance” whereby students who do not understand a process share their lack of understanding with other ignorant students. How can this lead to a learning situation? In successful learning situations, at least one of the members of the learning team must know the answers.

In public schools there’s an over-reliance upon teacher-training-teacher methods. A teacher is sent to a workshop outside the system where an expert gives a presentation. H/she collects materials, makes notes and comes back to “share” what they have learned. If you want to demonstrate to yourself how dangerous this approach is, use one of the techniques of communications experts. Whisper in the ear of a companion a paragraph of instructions and have him or her whisper it in the ear of another and so on, at least three times. By the time the message gets back to you, it would be nothing like what you said. The worker training worker may be a successful process providing one of them is skilled and knowledgeable in the subject, otherwise leaving the situation to chance will contribute to organizational failure.

6. Executives Working Without the Guidance of Profound Knowledge

Deming refers to four parts of “Profound Knowledge”, all interrelated to one another as being “an essential administrative skill.” (Deming, 1994, 93-115)

- A. *Appreciation of a System.* “Management of a system is based on prediction. Rational prediction requires systematic learning and comparison of predictions of short-term and long- term results from possible alternative courses of action.”
- B. *Knowledge about Variation.* “Theory of variation can play a vital part in the optimization of a system. Statistical theory is helpful in understanding differences between people and for understanding the interactions between people and the system that they work in.”
- C. *Theory of Knowledge.* “Theory of Knowledge helps us to understand that management in any form is prediction. The simplest plan — how may I go home tonight — requires prediction that my automobile will start and run, or that the bus will come, or the train. Management acts on a causal system and on changes in the causes.”
- D. *Knowledge of Psychology.* “Psychology helps us understand people, interactions between people and circumstances, interactions between teachers / pupils, interactions between a leader and his people and any system of management.”

Consider classroom supervision as it is practiced by most building administrators. The administrator comes into the classroom, sometimes on a pre-arranged schedule but other times he/she arrives unannounced. Remains in the class for 20 or 25 minutes during which time s/he observes the teacher and the students. This is followed by a brief, sometimes stand-up discussion, about the observed lesson. Educators, whom we say are in the people business, oftentimes fail to exercise any understanding of human nature in the ways in which we carry out our supervisory responsibilities. A supervisory situation, as just described, is usually meaningless and does not aid the teacher to grow in his or her professional competence.

Is the problem with the teacher? Deming maintains that the problem is with the system and clearly it is so in education. Although the teacher may indeed be in error in the way in which s/he teaches, the system of inspection is the one responsible for the lack of improvement. Very often supervisors are more interested in pleasing or appeasing their own immediate superior (or complying with State rules), than they are in improving the quality of the education offered by that school.

Nor do the many schemes that we have applied to the dysfunctional schools improve quality, as they rely upon "inspection:" which, according to Deming we must cease to rely upon. American education must go back to school just as American business did during the 1980's.

7. Tampering

Sometimes referred to as "tinkering". An approach to change or a modification of a situation that fails to address the fundamental issue or issues. Rather the focus is often something which is highly visible and is designed to create the impression that the administrator is dealing with fundamental issues in the school. Student attendance may be low so incentives are awarded on a class by class basis for improved student attendance. Such a plan is based on the supposition that poor attendance is a reflection of poor habits with respect to timeliness. However, if poor attendance is due to the poor health of the students, the lack of access to proper medical care, student fears or other substantial reasons, then incentives for attendance is "tampering" when "correction" of the causes is required.

Sometimes the incentive applied to solve the highly visible problem creates another problem. Some school districts "reward" students who come to school 100% of the school days by exempting them from a final exam. This is absurd and flies in the face of "profound knowledge". We know that the correlation between achievement and attendance is never very strong, regardless of the studies we view. While students with high achievement are often high attendance, the opposite is not true and we thus create another problem, rewarding attendance by limiting the student's opportunity to learn.

8. Failure to Optimize the Efforts of People and Divisions with the School, Accepting Instead Sub-optimization

Optimization and sub-optimization are economic concepts which Deming uses to illustrate the causes of failure in organizations. Optimization refers to practices at the individual or departmental levels which increase the value of the whole. Sub-optimization has the opposite effect.

Encouraging competition among and between schools, groups of teachers, or grade levels to attain specific goals related to that school, those teachers or those grades rather than striving for overall organizational goals, results in missed organizational goals.

Such competition may be appropriate for the playing field but undermines sound management of people and institutions. As these internal competition systems are put in place, schools and teachers use their political clout to acquire the students that are most likely to succeed. The focus should be on building a team that strives to attain quality as part of the organizational goal not at the expense of it. In the final analysis "quality of product or service" is the end goal and the success of each person who is part of the organization should be measured by the degree to which his sub-unit has contributed to the attainment of that goal.

9. Failure of Customers and Supplier to Work Together for Greater Satisfaction, Greater Quality and Lower Costs

Although this is clearly stated for the business sector, it holds true in the education sector where the customers are both our students and the receiving institutions that accept our graduates. Yet most schools and teachers view the students as incidentals in the overall scheme of things and individuals that we do things to and for. We seldom view them as a customer. If we viewed students as customers we might be more willing to consult them as to course offerings, classroom practice, teacher evaluations and discipline / control problems within the school. Then it would be a simple jump to seek input from the receiving institutions about our graduates, both strengths and weaknesses. Administrators who seldom consult with the teachers are even less likely to consult with students and this failure contributes to the disequilibrium and lack of harmony that we find in many schools.

It's the System Stupid!

As William Jefferson Clinton reached the final stretch in his first successful run for the White House a sign hung over his campaign headquarters and plane. The sign said "It's the economy stupid", a reminder to himself that the economy was the single most important issue for voters in that election. I wish to also hang a sign in each school system and classroom in the US that would remind us of where the real problem lies, our system of work.

How can teachers and principals succeed when the system is there simply to force compliance with outdated modes of conduct? How can students succeed when their classrooms are run by sub-optimizing systems of learning?

Before we face up to the formidable task of implementing TQM in our school or schools, we have to conduct a rigorous analysis of the school to see if these nine negative factors are present that may preclude success of the endeavor. If you find one or two or many of these inhibitors present, STOP and resolve them before you undertake Deming's Fourteen Points to the improvement of quality. In much the same way that we encourage teachers to create readiness for a topic or a subject in the classroom, administrators need to create a readiness for the introduction of TQM or other quality systems to the schools through the elimination of inhibiting factors as well as by creating an interest in and a need for quality improvement in the minds of the teachers, students and the community.

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