Issues in the application of Total Quality Management (TQM) to the development of educational standards are discussed in this paper. The first part describes the basic tenets of TQM, which are: focus on the customer; long term commitment to continuous improvement; top management support and guidance; employee involvement and responsibility; measurement to highlight problems; effective communication; and recognition. A conclusion is that TQM, Outcomes Based Education (OBE), and Site-Based Improvement (SBM) share a similar focus on systematically changing the traditional school paradigm. The next part describes issues in developing world class standards. Finally, issues involved in linking the development of standards and principles of TQM to educational reform are discussed. It is concluded that TQM cannot be applied in the educational setting until standards have been developed. The following conditions must be fulfilled for change to occur: change the belief structure of individuals within the organization; focus on the customers being served; use a systems-oriented approach; and develop world-class educational standards. Educational change must focus on changing the organizational culture. (LMI)
What Education Leaders Need to Know Generally About Quality and Standards

A presentation at the
Second National
Creating the Quality School Conference
March 25-27, 1993
Oklahoma City, Oklahoma

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Abstract:

For several years educators have been overwhelmed with issues concerning reorganizing and/or restructuring schools to better meet the needs of students for the twenty-first century. Annually, numerous national conferences are held which focus on developing "Quality Schools" or the "School Improvement Process". One critical piece of such initiatives which has been almost neglected in the current reform efforts for excellence, is the necessity to first develop standards for quality for educational systems. Too often educational consultants, departments of education, or other agencies prescribe the "Outcomes To Be" without focusing on the first step in the improvement process: the development of Standards which define a Quality program. The current national focus on "Outcomes Based Education" is a good example. OBE is a step in the right direction IF standards, appropriately designed, are in place at all levels. "Site-Based Management" is step in the right direction, IF standards, again appropriately designed, are in place. What is an effective school? How do you know? Who decides? How are changes made as programs are implemented-- is there a process in place? Who are the customers who decide quality and effectiveness? How are quality and effectiveness monitored? There is a need for educational quality standards to be developed at local, state, national and international levels. Who should be involved in the developmental process? What process should be invoked? These are some of the issues which will be discussed in this paper.
Reports of the past decade indicate that our educational systems are in a mess. In fact, as Dr. Leon Lessinger of the University of North Florida rightly states, educational leaders are no longer problem solvers, rather, they are mess managers (Lessinger, 1991). He explains that a mess is a "system of interdependent problems, no one of which can be solved independently of the others". To effectively manage a mess, selected components are held in place while other pieces are manipulated and results analyzed to determine the impact on the organizational system. Sound familiar? Education is once again focusing on the systems approach to understanding organizations by examining the "whole" (Leonard, 1991).

The systems approach to educational leadership and management is indeed alive and well. It lives within the confines of many of the current reform initiatives prescribed for the improvement of our school systems. While such acronymic programs as TQM (Total Quality Management), OBE (Outcomes-Based Education), SBI (Site-Based Improvement) and other notable strategies differ slightly in theory, they all have a common focus--they relate to systematically changing the traditional school paradigm. The effective schools movement of the early 1980's have now led us full circle back to a prevailing pattern of thought for leadership which was common in the early 1970's, the systems approach to organizational improvement. The concept of quality circles or participatory decision-making has added another wrinkle to describe the current reform initiative focus.

**TQM: A Beginning**

W. Edwards Deming made an historic trip to Japan in 1950 and ultimately forged the Japanese workforce into the world's strongest competitors. Our world began to transform without many people taking notice that things were slowly becoming very different. The successful Deming approach to organizational improvement was, and still is, very clearly stated. He bases his improvement focus on four beliefs and 14 specific points (Melvin, 1991).

Deming's Basic Beliefs
- All people are thoughtful, well meaning beings who have a desire to learn. Every person has the right to be successful and the right to enjoy their work.
- All organizations must be considered as systems; they must be considered in their entirety
- People learn through experiences. All organizational members need to have similar experiences.
Most variations from desired and expected outcomes in any organization is due to problems within the system, not problems with the workers.

Deming’s 14 Points for Quality
1. Create a constancy of purpose for improvement.
2. Adopt a new philosophy for improvement.
3. Cease dependence on mass inspection.
4. End the practice of awarding business on short-term costs.
5. Constantly improve the system.
6. Institute training to teach workers to do the job well.
7. Institute leadership consisting of helping people.
8. Drive out fear of asking questions.
9. Break down barriers between staff areas.
10. Eliminate workforce slogans, exhortations, and targets.
11. Eliminate numerical quotas.
12. Remove barriers to pride of workmanship.
13. Institute a vigorous program of education and retraining.
14. Take action to accomplish the transformation.

A close examination of the four belief and the 14 points associated with the Deming philosophy for leadership indicates a close alignment with educational reform strategies of the 1980’s. Demings’ philosophy is in conceptual agreement with noted educational theorists. Virtually all contemporary educational improvement models are pragmatic extensions of the Deming philosophy. The models have an implicit commonality: they focus on identifying a "purpose" or "mission" or "exit outcome" or something to focus on and work toward. Examine any improvement model or outcomes-based education model and it is clear that integral parts include action planning and the need for staff development (refer to Deming’s points 6 and 13). Deming reminds us that we must have a constancy of purpose (point 1), i.e., a mission or desired outcome; he reminds that we must focus on long and short range strategic planning (point 4) and that we must take action (point 14).

A concept that is part and parcel to SBI or OBE models is the involvement of employees into those decisions that directly affect them and their work. That vital concept mirrors Deming’s points 5, 7, 9, and 12. Points 2 and 8 give additional support to the inherent importance of involving other into the planning and implementation of plans.

Further examination of Deming’s "14 points" might lead researchers into a belief that points 10 and 11 stand alone and do not relate to educational systems. Upon closer examination, the observation is unfounded. Today, since heavy emphasis is placed on educational success for all students, both Site-Based Improvement and Outcomes-Based Education provide a focus for
eliminating numerical targets and quotas. Thus, in SBI, OBE and TQM approaches to educational excellence we are clearly talking about very similar models.

Deming notes the difficulty in establishing the changes necessary to develop quality programs. He admonishes that our systems are vulnerable to Seven Deadly Diseases (Walton, 1986, p. 36).

The Seven Deadly Diseases
1. Lack of constancy of purpose. A company that is without a constancy of purpose has no long range plans for staying in business. Management is insecure and so are employees.
2. Emphasis on short-term profits. Looking to increase quarterly profits undermines quality and productivity.
3. Evaluating by performance, merit rating, or annual review of performance. The effect of these are devastating- teamwork is destroyed, rivalry is nurtured.
4. Mobility of management. Job hopping managers never understand the companies they work for and they are never there long enough to follow through on long-term changes needed for quality and productivity.
5. Running the company on the visible figures alone. The most important figures are unknown and unknowable- the multiplier effect of a happy customer, for example.

Diseases 6 and 7, according to Deming, are pertinent only to the United States.
6. Excessive medical costs.
7. Excessive costs of warranty, fueled by lawyers that work on contingency fee.

A cornerstone of success for implementing any of the recent improvement is the use of that model throughout the entire system. It is not enough to jointly develop a mission statement and stop, nor is it enough to identify exit outcomes and stop. We must implement the complete model throughout the system, from planning to implementation, to using feedback for continual improvement. Indeed, quality can only be improved by harnessing the process (Leonard, 1990). The most acclaimed processes to date involve uniting the basic fulfilling needs of or staff members to the ultimate goals of the organization. While these faction are oftentimes disparate, a process such as TQM can actualize the union.

A key message that comes out time and time again in the TQM literature is that a focus must be made toward the customer. In fact, there are three important aspects of TQM:
1. Counting: Using tools, techniques, and training to analyze and understand problems. There is an emphasis
on statistical analysis; however, analysis is not the be-all or end-all for the TQM concept.

2. **Customers**: Quality for the customer is the driving force and central concern.

3. **Culture**: The shared beliefs and values expressed by leaders must define and support quality. (Sashkin and Kiser, 1991)

A key difference between TQM and other improvement concepts is that the leader must initiate the TQM process and allow the process to occur from the bottom up. It is not enough to empower people. Top management must set the stage and operate the organization to allow the tools and techniques to be applied to manipulate the culture to be focused on customer satisfaction.

TQM is the umbrella which allows for a leader-initiated vision to be implemented through utilizing various models such as OBE and SBI. Obviously, programs such as mastery learning, learning styles programs, team management programs, and so on, all support the umbrella.

In a seminar held at the University of Oklahoma approximately a year ago, valuable insight was provided to support the need for setting reasonable standards for measurement and evaluation relating to educational organizations. It is clear that Total Quality Management is a potential source for measuring and evaluating customer satisfaction, one of several factors which must be examined. Total Quality Management is an integrated management system for achieving customer satisfaction. It involves all organizational members and uses quantitative methods to continuously improve an organizations process. A vital element of the total quality method is the emphasis on process. Several principles guide the TQM process (Walser, 1991):

- A focus on the customer, both internal and external
- Long term commitment to continuous improvement
- Top management support and guidance
- Continuous training and support
- Employee involvement and responsibility
- Measurement to highlight problems
- Measurement to maintain direction and determine quality levels
- Effective communication
- Recognition

The focus of TQM is on

- Integrated, comprehensive long term improvement
- Identifying and solving problems, not symptoms
- Moving decision-making and problem solving to the employee level
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- Allowing those who solve the problems to be responsible for implementing the solutions
- Building commitment to the solution--continually

In the educational setting, we have many questions yet to be answered about the application of TQM. Paramount among the list of problems are those which deal specifically or tangentially with the issues associated with Standards development.

The Need for World Class Standards

The TQM process had its beginnings in business and industry where a strong history of the use of procedures designed to achieve consensus on voluntary standards were already established. The tradition of voluntary standardization is not nearly as evident in the service sector of our economy. In fact, it is hardly evident at all in the education sector. Reports by noted education experts have identified a myriad of possible curricula foci (Finn and Ravitch, 1987; Bennett, 1987)

To allow for full implementation of the concepts of TQM, organizations must have clearly defined standards. Only then can the application of the concepts of Total Quality Sciences or specifically, TQM, be applied in the proper way. Even though the concept of Total Quality Sciences, the parent framework for TQM, is relatively new to educational settings, groundwork has already been laid in most states which has formed a foundation necessary for implementation of the Total Quality Sciences concept. By involving all stakeholders more fully in the operation of schools and by focusing on the examination of the entire system and then utilizing a process to develop a comprehensive plan for school improvement, the beginnings of implementation of the Total Quality Sciences into the educational arena has already begun.

However, one key element has been neglected in the reform effort. Efforts for state reform have begun without first addressing the definition of quality. In several states, Oklahoma among them, a tremendous amount of effort has been expended to identify state mandated learner outcomes without first identifying standards on which we gauge our systems. There is certainly nothing wrong with initiatives to specify desired outcomes; however, the step of identifying outcomes should come after basic questions are answered. What is a Quality Educational System? Whose definition of quality do we use and why did we choose that definition? How does our definition fit in with what other states, our nation, and other nations define? State after state joins the pool of those who tout the prowess of the TQM concept; unfortunately, many of those who have dived into the pool did not and have not yet put on their swimming trunks.

In business and industry one is able to gauge the worth of a product in a common language. For instance, a meter in France is
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the same as a meter in America or a meter in Australia. An extension cord for an electrical appliance, if stamped with UL approval, means that certain standards have been met for that product. Unfortunately, the same type of statements cannot be made in education. A stamp of "graduate" from one school system very often will look very dissimilar to a "graduate" of another system. What is a quality educational system in America? In Australia? In France? What is a quality educational system in Oklahoma? In New Hampshire? In California? What is a quality educational system in Norman, Oklahoma? In Ada, Oklahoma? In Gotebo, Oklahoma? As we in education have focused our thoughts on our product to allow us to identify outcomes, we must not neglect to view our educational systems in their entirety. Further, we must be mindful that we live, work, and prepare students who relate to a global society.

Without the establishment of definitions of Quality, we simply cannot ever hope to achieve Quality. We must focus our efforts to define World Class Standards. It is difficult to pick up a plan describing "schools for tomorrow" without finding somewhere in the descriptive narrative a focal point on how the school will develop students to meet World Class Standards. Again, I ask some simple questions: What are the World Class Standards to be judged against? Who devised them? On what bases were they devised? Discussions are just now beginning to provide answers to these questions.

World Class Standards, as they are established, must be broad enough to provide general direction, yet at the same time they must be specific enough to adequately describe mutually conceived, clearly defined outcomes. The standards should provide direction, yet be open enough to allow administrative strategy to be employed under the direction of local initiative. Both operational and outcomes-based standards should be developed. This conference is one step down the road to World Class Standards development.

The Development of Standards

The development of any type of world class educational standard will be a difficult task. The term "standards" connotes different things to individuals and organizations. ASTM defines a "standard" as "a rule for an orderly approach to a specific activity, formulated and applied for the benefit and with the cooperation of all concerned". Standards, however, can be conceived in different ways (Walser, 1991). Consensus Standards, Non-Consensus Standards, and the generic classification of Other Types of Standards are only three of the ways one might view standards. Examples falling under each category follow.

Consensus Standards:

Standard Test Method: A definitive procedure for the identification, measurement, and evaluation of one or more qualities, characteristics, or properties of a material, product,
system, or service that produces a test result.

**Standard Specification:** A precise statement of a set of requirements to be satisfied by a material, product, system, or service, that also indicates the procedures for determining whether each of the requirements is satisfied.

**Standard Practice:** A definitive procedure for performing one or more specific operations or functions that does not produce a test result.

**Standard Terminology:** A definition or description of terms, or explanation of symbols, abbreviations, or acronyms.

**Standard Guide:** Offers a series of options or instructions, but does not recommend a specific course of action.

**Standard Classification:** A systematic arrangement or division of materials, products, systems, or services into groups based on similar characteristics such as origin, composition, properties, or use.

**Non-Consensus Standards:**

**Company Standard:** Consensus being among the employees (principally within such departments as design, development, production, and purchasing) of a given organization.

**Industry Standard:** consensus being among the companies within a given industry (typically developed by a trade association).

**Professional Standard:** Consensus being among the individuals of a given profession (typically developed by a professional society)

**Government Standards:** Consensus often being among the employees of a governmental agency or department.

**Other Types of Standards:**

**Object Standards** describe and define objects or natural phenomena such as weights and measures.

**Documentary Standards** address issues such as definitions, classifications, recommended practices, specifications, test methods, and codes.

**Conceptual Standards** target issues encountered in social areas such as customs, traditions, and behavior norms. (Walser, 1991)

Other concerns relating to the establishment of standards provide a focus on the value of **Mandates** for the development of standards versus **Voluntary** development of standards. We in the United States are a country of free thinkers. How do our thoughts about education relate to those of educators in other countries? In Oklahoma alone, there are approximately 570 school districts run by local boards of education. It is quite easy to imagine and indeed find approximately 570 different sets of values about what schools should be. Major problems occur when we try to discover the "Key" values which must be included in all
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Educational programs. Multiply the number of concerned individuals who should be involved in developing standards for all 50 United States, add in the number of individuals representing other nations, and the size of the groups who should be involved in establishing World Class Standards becomes seemingly unmanageable.

By examining issues relating to each of the types and thoughts on standards listed previously, it is clear that a great deal of planning and organization must be done to synthesize the various perspectives on education before groups can begin the development process of establishing World Class Standards for education. Issues which must be addressed include:

* Standard Definitions and Terms
* Standard Data Collection
* Agreement on Methods of Analysis of Student and Organization Effectiveness.

Linking The Development of Standards and Issues of Total Quality Management to Current Educational Reform Issues

As Alice wandered through the forest in search of her way out Wonderland, she came to a fork in the road. Observing the Cheshire Cat perched in a tree, she asked "Which path should I take?" The Cheshire replied, "Well, where do you want to go?" Alice was lost and in a quandary. "I really don't know, sir." This hesitancy prompted the Cheshire Cat to provide sage advice. "If you don't know where you're going, it makes no difference which road you take."

In effect, the cat was telling Alice that you must take into account where you're going in deciding what direction to take. The issue of Total Quality Management in the educational setting will not be possible until standards have been developed to allow for direction. Just like Alice, we must have a place in mind to go before we actually get there. Without standards, we will wander in the forest until, perhaps if we are lucky, we find the right path to travel to get somewhere. The journey itself is the important thing; however, unless we know which direction to head, the journey is useless.

Districts, states and nations which have already initiated a process to involve concerned individuals in identifying desired outcomes have turned in the right direction. However, it has become increasingly clear that state and federal mandates for educational improvement simply do not cause the accomplishment of the desired outcomes. One can mandate improvement, but the reality of what actually occurs is often quite different. Very little long term change has occurred over the past decade of massive reform. Why? Could it be the target selected for change has been the wrong target?
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What Must Change?

Change must come in the belief structure of the individuals who compose membership of the educational organizations. The Organizational Culture must be targeted for real change to occur. It is up to leaders to: 1) assist employees to focus on customer needs; 2) to provide time to employ processes which involve staff in the development and implementation of long range plans; and, 3) to become supportive leaders who coach the staff to ensure that employees are assets to the organization.

In order to achieve quality in our educational systems we must focus on the customers we serve. We cannot do business as usual and pay lip service to this concept by saying "well, my customer is my immediate supervisor; I will work to please that person". There are many customers who must and should be served by our efforts. Both internal and external customers should be identified and served through processes for customer satisfaction which are installed system-wide. Regular checks on the system must be made and tools employed to track changes resulting from processes employed. We must become systems oriented and use processes that allow us to strengthen the organizational culture.

An understanding and focus on change through changes in organizational culture is the only strategy which will allow for long-term institutional change. By mutually developing World Class Educational Standards and employing the techniques of Total Quality Management; and, by focusing on change through changing the culture of the organization, meaningful, quality educational change can and will occur.
Bibliography


