

Total Quality Management Applied to Schools

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ABSTRACT

The concepts formulated by Total Quality Management (TQM) founder, W. Edwards Deming, have been suggested as a basis for achieving excellence in schools. It is an opportunity to conceptualize a systematic change for schools. In this article, I discuss the framework for transforming schools using Deming's 14 TQM principles.

Total Quality Management

The Japanese transformed their economy and industry through a visionary management technique called *total quality management* (TQM). School leaders are finding that TQM principles can provide the formula for improving America's schools.

TQM is a systematic approach to education reform based on the philosophy of W. Edwards Deming (2000). Deming's work is not merely about productivity and quality control; it is a broad vision on the nature of organizations and how organizations should be changed.

When educators look at TQM principles, they assume that the model applies only to profit-making organizations. Actually, TQM applies as well to corporations, service organizations, universities, and elementary and secondary schools.

Indeed, the concepts formulated by TQM founder, W. Edwards Deming, have proved so powerful that educators want to apply TQM to schools. Deming's philosophy provides a framework that can integrate many positive developments in education, such as term-teaching, site-based management, cooperative learning, and outcomes-based education.

The problem is that words like *learning* and *curriculum* are not found in Deming's 14 principles. Some of Deming's terminology needs to be translated to schools as well. For example, superintendents and principals can be considered *management*. Teachers are *employers* or *managers* of students. Students are *employees*, and the knowledge they acquire is the *product*. Parents and society are the *customers*. With these translations made, we can see many applications to schools.

Deming's 14 TQM Principles Applied to Schools

Deming's 14 principles are based on the assumption that people want to do their best and that it is management's job to enable them to do so by constantly improving the *system* in which they work. The framework for transforming schools using Deming's 14 principles follows.

Create constancy of purpose for improvement of product and service.

For schools, the purpose of the system must be clear and shared by all stakeholders – school board members, administrators, teachers, support staff, parents, community, and students. Customer needs must be the focus in establishing educational aims. The aims of the system must be to improve the quality of education for all students.

Adopt the new philosophy.

Implementation of Deming's second principle requires a rethinking of the school's mission and priorities, with everyone in agreement on them. Existing methods, materials, and environments may be replaced by new teaching and learning strategies where success of every student is the goal. Individual differences among students are addressed. Ultimately, what may be required is a total transformation of the American system of education as we know it.

Cease dependence on inspection to achieve quality.

The field of education has recently entered an era that many American corporations have abandoned: inspection at the end of the line (Bonstingl, 2001). In industry this was called "product inspection." According to Deming, it always costs more to fix a problem than to prevent one. Reliance on remediation can be avoided if proper intervention occurs during instruction. Examples of preventive approaches in schools include Robert Slavin's (2009) "success for all schools," James Comer's (2000, 2006) "school development program," Henry Levin's (1986) "accelerated schools," Joyce Epstein's (2010) "parent involvement strategies," Cara Shores' "RTI process," and the more traditional, long-standing intervention approaches: Head Start, Follow Through, preschool programs, and other remedial interventions. These intervention strategies can help students avoid learning problems later.

End the practice of awarding business on the basis of price alone.

The lowest bid is rarely the most cost-efficient. Schools need to move toward a single supplier for any one time and develop long-term relationships of loyalty and trust with that supplier.

Improve constantly and forever every activity in the organization, to improve quality and productivity.

The focus of improvement efforts in education, under Deming's approach, is on teaching and learning processes. Based on the latest research findings, the best strategies must be attempted, evaluated, and refined as needed. And, consistent with learning style theories (Dunn & Dunn, 1992; Dunn, Dunn, & Perrin, 1994), Howard Gardner's (1994) multiple intelligences, and Henry Levin's accelerated schools for at-risk students, educators must redesign the system to provide for a broad range of people – handicapped, learning disabled, at-risk, special needs students – and find ways to make them all successful in school. This means requiring universal standards of achievement for all students before permitting them to move to the next level. Such provisions are stipulated in the *No Child Left Behind Act of 2001*.

Institute training on the job.

Training for educators is needed in three areas. First, there must be training in the new teaching and learning processes that are developed. Second, training must be provided in the use of new assessment strategies (Popham, 2010a, b). Third, there must be training in the principles of the new management system. For schools, this means providing continuous professional development activities for all school administrators, teachers, and support staff.

Institute leadership.

Deming's seventh principle resembles Peter Senge's (2006) systems thinking. According to both Senge and Deming, improvement of a stable system comes from altering the system itself, and this is primarily the job of management and not those who work within the system. Deming asserts that the primary task of leadership is to narrow the amount of variation within the system, bringing everyone toward the goal of perfection. In schools this means bringing everyone toward the goal of learning for *all*. It means removing achievement gaps for all population groups – a movement toward excellence and equity. Numerous books have been devoted to this pursuit recently such as Linda Darling-Hammond's (2010) *The Flat World and Education*, Tyrone Howard's (2011) *Why Race and Culture Matter in Schools: Closing the Achievement Gap*, Rod Paige's (2011) *The Black-White Achievement Gap: Why Closing the Gap is the Greatest Civil Rights Issue of Our Time*, and Alan Blankenstein's (2010) *Failure is not an Option: Six Principles for Making Student Success the ONLY Option*.

Drive out fear.

A basic assumption of TQM is that people want to do their best. The focus of improvement efforts then must be on the processes and on the outcomes, not on trying to blame individuals for failures. If quality is absent, the fault is in the system, says Deming. It is management's job to enable people to do their best by constantly improving the

system in which they work. Fear creates an insurmountable barrier to improvement of any system. In schools, faculty and staff are often afraid to point out problems, because they fear they may be blamed. School leaders at all level need to communicate that staff suggestions are valued and rewarded.

Break down barriers among staff areas.

Deming's ninth principle is somewhat related to the first principle: Create constancy of purpose for improvement of product and service. In the classroom, this principle applies to interdisciplinary instruction, team teaching, writing across the curriculum, and transfer of learning. Collaboration needs to exist among members of the learning organization so that total quality can be maximized. In schools, total quality means promoting learning for all. It is the essence of initiating and maintaining a professional learning community (DuFour & Eaker, 1998; DuFour, DuFour, & Eaker, 2008).

Eliminate slogans, exhortations, and targets that demand zero defects and new levels of productivity.

Implicit in most slogans, exhortations, and targets is the supposition that staff could do better if they tried harder. This offends rather than inspires the team. It creates adversarial relationships because the many causes of low quality and low productivity in schools are due to the system and not the staff. The system itself may need to be changed. I am not in total agreement with Deming's fourteenth principle. Deming's assertion may be true for business organizations, but educators tend to use a lot of slogans as a general practice. Typical slogans used by educators are "Keep the main thing, the main thing." This slogan refers to keeping *students* the focus of all discussions. Another slogan that most teachers adopt is "All children can learn." Slogans, such as these serve as targets in school organizations.

Eliminate numerical quotas for the staff and goals for management.

There are many practices in education that constrain our ability to tap intrinsic motivation and falsely assume the benefits of extrinsic rewards. They include rigorous and systematic teacher evaluation systems, merit pay, management by objectives, grades, and quantitative goals and quotas. These Deming refers to as forces of destruction. Such approaches are counterproductive for several reasons: setting goals leads to marginal performance; merit pay destroys teamwork; and appraisal of individual performance nourishes fear and increases variability in desired performance.

Remove barriers that rob people of pride in their work. Remove the barriers that rob people in leadership of their right to pride in their work.

Most people want to do a good job. Effective communication and the elimination of "de-motivators" — such as lack of involvement, poor information, the annual or merit rating, and supervisors who don't care — are critical.

Institute a vigorous program of education and retraining for everyone.

The principal and staff must be retrained in new methods of school based management, including group dynamics, consensus building, and collaborative styles of decision making. All stakeholders on the school's team must realize that improvements in student achievement will create higher levels of responsibility, not less responsibility.

Put everyone in the organization to work to accomplish the transformation.

The school board and superintendent must have a clear plan of action to carry out the quality mission. The quality mission must be internalized by all members of the school organization (school board members, administrators, teachers, support staff, students, parents, community). The transformation is everybody's job (Deming, 1988, pp. 23-24).

Conclusion

The concepts formulated by TQM founder, W. Edwards Deming, have been suggested as a basis for achieving excellence in schools. It is based on the assumption that people want to do their best and that it is management's job to enable them to do so by constantly improving the *system* in which they work. It requires teamwork, training, and extensive collection and analysis of data. It is an opportunity to conceptualize a systematic change for school districts.

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