

## **Elaboration on the 14 Obligations: Points 3 and 4**

*Point 3: Cease dependence on tests and grades to measure quality.*

*Point 4: Cease dependence on price when selecting curriculum, texts, equipment and supplies for the school system.*

Even though most of his followers will be found in business and manufacturing organizations, Dr. W. Edwards Deming's teaching and principles apply to any enterprise. This is the third in a series of blogs that present a restatement of Deming's 14 Points for Management as "Obligations of the School Board and Administration." Earlier we introduced the obligations as a model of a healthy environment for work, learning and continuous improvement in a K-12 education setting. Here we will expand and elaborate on the third and fourth of the following 14 Obligations.

### **Obligations of the School Board and Administration**

1. Create constancy of purpose toward improvement of the entire school system and its services.
2. Adopt the new philosophy. We are in a new economic age.
3. Cease dependence on tests and grades to measure quality.
4. Cease dependence on price alone when selecting the curriculum, texts, equipment and supplies for the system.
5. Improve constantly and forever every process for planning, teaching, learning and service.
6. Institute more thorough, better job-related training.
7. Institute leadership (i.e., management of people).
8. Drive out fear.
9. Break down barriers between groups in the school system.
10. Eliminate the use of goals, targets and slogans to encourage performance.
11. Closely examine the impact of teaching standards and the system of grading student performance.
12. Remove barriers that rob staff and administrators of pride of workmanship and that rob students of the joy of learning. This means, *inter alia*, abolish staff ranking and the system of grading student performance.
13. Institute a vigorous program of education and self-improvement for everyone in the system.
14. Plan and take action to accomplish the transformation.

### **Point 3. Cease dependence on tests and grades to measure quality.**

Please bear in mind that this point does not call for the elimination of standardized tests or testing in general. After all, without assessment we will not be able to answer the critical question, “How are we doing?” Rather, this point calls for eliminating *dependence* on standardized and other tests as the *sole* measures of quality.

Standardized tests, at best, assess child development along cognitive lines. Such assessment must continue in order to monitor such basic skills as reading, writing and mathematics. At the same time, the limitations of standardized tests must be appreciated. For one thing, they provide only a once-a-year answer to the question, “How are we doing?” Using those instruments alone, one would need a minimum of 8 years of standardized test data to determine if changes to one grade level’s curriculum generated a significant improvement trend!

Therefore, it is recommended that educators place greater emphasis and trust on classroom teachers and their end-of-chapter, end-of-unit quiz scores, homework and class work assessments. Such instruments are more robust and can generate 10, 15 or 20 responses each term to the question, “How am I doing?”

Another danger of dependence on standardized tests is that they were never intended to assess student progress in physical, emotional or social development. (Parochial schools would add spiritual development, as did the ancient Greeks.) They also aren’t helpful in assessing progress and development of interpersonal skills and other important competencies cited in the SCANS report. (See the March 21<sup>st</sup> blog on [www.jimleonardpi.com](http://www.jimleonardpi.com) for more information about the SCANS report.) No standardized test will ever yield the following profound insight recorded by a high school student in her learning log: “I will learn great thinking skills that will go with me forever; not just some grade that’s only on a sheet of paper anyway.”<sup>1</sup>

Point 3 also calls for educational leaders to recognize certain weaknesses of standardized tests, even as assessments of cognitive skills development. A fourth grader in Middletown, Connecticut, has been writing beautiful poems from scratch for two or three years. Following is one of his poems:<sup>2</sup>

#### **The Wind**

The wind is a wispy tail.  
The wind is a soft motion blowing in my hair.  
the wind is a tornado picking up houses.

Wind is a savage monster ripping power lines.  
The wind is a singer, singing to nature.  
The wind is a delightful whistler.

The wind is laughing at our mistakes.  
 The wind is crying at poverty.  
 The wind blows because it wants to see the world.

The wind is a wonderful, scary,  
 jolly, sad, happy free soul in me.

The author of this beautiful piece of creative writing tested below the remedial level in writing on the Connecticut Mastery Test. Clearly, there is a need to place greater emphasis on ways other than standardized tests to observe, assess and celebrate evidence of children's development.

### **Cease dependence on tests, but *abolish* grades.**

This third Obligation's treatment of grades is quite different from its treatment of tests. I am not suggesting that we merely cease dependence on grades, but that we *abolish* them. Deming wrote, "Abolish grades (A, B, C, D) in school, from toddlers on up through the university. When graded, pupils put emphasis on the grade, not on learning.... The greatest evil from grades is forced ranking – only (eg.) twenty percent of pupils may receive an A. Ridiculous. There is no shortage of good pupils."<sup>3</sup> This suggestion is so radical! How do I know how my children are doing in school without grades? How do my children get into college without grades? To propose that we abolish them is so radical.

I'll grant you, the call to abolish grades is indeed radical; but viewed through the lenses of rational theory of variation makes that radical proposal no less rational. The question is not, "Are these student achievement levels different?" They're going to be different. The question is, "Are those achievement levels *significantly* different?" If the performance or achievement levels are significantly different, treat, grade and reward those students differently.

If the performance or achievement levels are not significantly different, don't treat or reward them differently. Why? Because the limits we use to test for significance are dictated and controlled by common causes of variation from within the process of which students are but a part – and students can perform no better than the process allows! Why do we persist in issuing low grades to students when it's so often the *system* that's failing?

For example, let's say Jacob is a high school student in your community. Last semester, his final average was 89.9. One of his classmates achieved a final of 90.0 for the same semester. What is the difference between those two final averages?

Based on the standard high school assessment scale, the difference between the 89.9 and 90.0 is a difference of one one-thousandth, spread out over an entire academic term. Any rational human being would conclude that such a difference is not significant. After all, one nose cold

during one homework assignment could account for such an insignificant difference. Incorrectly rounding one decimal point on one math exam – perhaps caused by poor teaching method, having nothing to do with Jacob’s cognitive abilities – could account for such an insignificant, one one-thousandth of a difference at the end of a four-month academic semester.

In the traditional American school, however, we take that clearly and rationally insignificant difference of one one-thousandth and we make it significant! It becomes the difference between an A and a B. It becomes the difference between whether or not a student receives a college scholarship or a break on his auto insurance premiums. It becomes the difference between whether or not his parents get one of those “Proud Parent of an Honor Roll Student” bumper stickers!

As more emphasis is placed on protecting students’ self-esteem (and avoiding the fact that it’s the grading system that destroys many students’ self-esteem), these irrational grading and ranking practices have been expanded. Many schools no longer publish just one honor roll. They’ve added a high honor roll and a principal’s list and “recognition” to the mix. In the interest of so-called progressive education and reform, schools are finding new and exciting ways to sort and label outcomes so students feel good (or at least better) about themselves. Unfortunately, these sorting practices do nothing to improve the process of teaching and learning. They do nothing to remove systemic barriers to higher levels of learning and achievement.

Susan Robertson, an education and learning consultant, worked for years with learning disabled (LD) students. She reported that up to one-third of the students in public elementary schools have been labeled LD. Among the students with whom she worked, 100 percent of those labeled LD (barring those with clear physical or mental handicaps) performed at or above average after tutoring in basic reading skills. Robertson insisted that these students “are not learning disabled, they are teaching disabled!”<sup>4</sup>

Knowledge of the theory of variation is required to fully grasp the dangers of traditional grading practices in our schools. In this regard, Deming wrote,

“Need a teacher understand something about variation? Mr. Heero Hacquebord sent his six-year-old daughter to school. She came home in a few weeks with a note from her teacher with the horrible news that she had so far been given two tests, and this little girl was below average in both tests.... The little girl learned that she was below average in both tests. She was humiliated, inferior. Her parents put her into a school that nourishes confidence. She recovered.”<sup>5</sup>

Fortunately, the little Hacquebord girl’s story had a happy ending. How many students’ stories have a sad or tragic ending because they have teachers who do not possess some knowledge of the theory of variation?

I do not want this point to come across as if grades should be abolished solely in the interest of low-scoring students' self-esteem. Granted, the fourth component of Deming's system of profound knowledge (knowledge of psychology) is a factor here. The traditional grading system indeed serves as a barrier to children's joy of learning (Point 12); but one must also recognize how the system of grading student performance hurts some of the top students, too.

During one of my seminars for educators, a high school teacher talked about one of her students who was in the running for the valedictorian award at graduation. The teacher told us, "Throughout her high school career, this student has not once challenged for an AP [advanced placement] course. She can't take the chance, because she's afraid her grades will go down."

Thus, beyond all the evidence of the destructive effects of the grading system on students' self-esteem, the same system leads to a situation in which far too many top students dumb down their own learning experience! Relative to the current system, the call to abolish grades may be viewed as a radical proposal; but that makes it no less rational. Two closing thoughts about Point 3:

1. A lot of concern and energy are being invested in our schools out of concern for "bullying." Anti-bullying programs and student assemblies on bullying are occurring in schools across the American landscape. Little or no attention is being paid to eliminating the most common and pervasive form of bullying in our schools: the grading system. It's one thing for a classmate to call a child "stupid" during English class. It's another thing to receive that message from the school, grading period after grading period, semester after semester, year after year... What are the long-term, destructive effects of such systemic bullying?
2. What is a grade? "A grade is an inadequate report of an inaccurate judgment by a biased and variable judge of the extent to which a student has attained an undefined level of mastery of an unknown proportion of an indefinite amount of material."<sup>6</sup>

**Point 4. Cease dependence on price when selecting curriculum, texts, equipment and supplies for the school system.**

As in the case of standardized tests (Point 3), this point stresses the need to cease dependence on purchase price – but not to ignore price. Purchase price is one variable in the total cost of purchased equipment, materials and services; but it is just one variable. District purchasing practices must also be guided by concern for total cost of purchased equipment, materials and services – including long-term reliability and after-sale service. Though many states mandate purchasing from the lowest bidder, most district business managers with whom I've worked seem to understand the difference between lowest bidder and lowest *qualified* bidder.

Deming shared one example of an administrator whose thinking was guided by Point 4. Sr. Jeanne Perreault, former president of Rivier College in Nashua, New Hampshire, once said, “We cannot afford to purchase equipment and buildings at lowest price. We have to be more careful.”<sup>7</sup>

Developing partnerships with suppliers (Point 9) helps to engage them in efforts to continuously improve processes throughout the school district (Point 5). Conversely, purchasing decisions driven by concerns for this year’s budget alone may impede long-term improvements and constancy of purpose (Point 1).

## Conclusion

It’s hard to believe that it’s been almost 25 years since I first met with Dr. Deming about my interest in translating his principles for application in a K-12 education setting. Throughout our discussions and correspondence, he was both patient and somewhat demanding during my first attempts to convert his 14 Points for Management into 14 Obligations for the School Board and Administration. Future blogs will elaborate on other points in the model. I hope you will enjoy this series of blogs and share them with educators in your community.

## Notes

<sup>1</sup>J.F. Leonard, *The New Philosophy for K-12 Education: A Deming Framework for Transforming America’s Schools*, ASQ Quality Press, Milwaukee, WI (1996), p. 197.

<sup>2</sup>*Ibid.*

<sup>3</sup>W.E. Deming, *The New Economics for Industry, Government, Education*, MIT Center for Advanced Educational Services, Cambridge, MA (1994), p. 148.

<sup>4</sup>S. Robertson, *Reading, Writing and Ripped Off*, Higher Knowledge, Humble, TX (1993), Videocassette.

<sup>5</sup>W.E. Deming, *Out of the Crisis*, MIT Center for Advanced Educational Services, Cambridge, MA (1986), p. 130.

<sup>6</sup>P. Dresser in *Basic College Quarterly*, Michigan State University, Lansing, MI (Winter, 1957).

<sup>7</sup>Deming, *Out of the Crisis*, p. 33.