

Elaboration on the 14 Obligations: Points 5 and 6

Point 5: Improve constantly and forever every process for planning, teaching, learning and service.

Point 6: Institute more thorough, better job-related training.

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 fourth 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 fifth and sixth 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 5. Improve constantly and forever every process for planning, teaching, learning and service.

One might wonder what the difference between Point 1 and Point 5 really is. After all, both seem to be calling for the improvement of the system and its processes over the long term. Gitlow and Gitlow noted how they're both different and connected by describing how ongoing efforts to improve processes (Point 5) are guided by long-term thinking (Point 1):

“Making a commitment to constantly improve the system necessitates a long-term perspective. Analyzing, understanding and improving the process are ongoing tasks that stretch out into the infinite future. Management must be able to deal with the day-to-day issues of the organization and also move toward never-ending improvement. The scope of never-ending improvement is vast and overwhelming, but Point Five offers some tangible ways of improving the system.”¹

Those tangible ways for improving processes include the application of powerful and essential statistical methods. They are applied by teams of teachers, parents, specialists and others in a disciplined and systematic fashion to accomplish dramatic improvements in processes. It doesn't matter whether the team is guided by the PDCA cycle (Plan-Do-Study-Act), the Six Sigma DMAIC procedure (Define-Measure-Analyze-Improve-Control), or the Basic Procedure for Improving a System that I've been teaching to clients for 30 years. As long as teams use the methods, use data and follow a structured approach they can and will improve their processes.

Obviously, learning and applying the essential statistical methods and the basic procedure for improving a system will require training (Point 6). Because the procedure is best applied by a cross-functional project team of representatives from different groups and departments, attention must be paid to removing systemic barriers between those groups (Point 9).

Finally, it must be stressed that the core theme of Point 5 involves improvement of processes – not problem-solving, not fire-fighting. In this regard, Deming wrote, “Putting out fires is not improvement of the process. Neither is discovery and removal of a special cause detected by a point out of control. This only puts the process back to where it should have been in the first place.”²

Improvement of processes, on the other hand, produces significant changes in their outcomes. Ongoing process improvement efforts yield higher and higher levels of student learning and achievement without the need of numerical goals, hopes and wishes (Points 10 and 11) – which too often serve to impede improvement!

Point 6. Institute more thorough, better job-related training.

William Scherkenbach suggests that part of continuous improvement (Points 1 and 5) is to provide all staff members with a broad understanding of statistical thinking and statistical

methods.³ As these tools are learned and applied, they contribute to one major aim of the training: reduced variation in work methods.

In every district I visit, I hear stories about some teachers whose classes are highly structured and disciplined, while other teachers in the same building allow just about anything in their classes. What are the effects on students of those mixed messages, and of the wide variation in classroom discipline criteria and practices?

In an elementary school, three different third-grade teachers may employ three different methods in teaching certain math facts. Some combination of the three third-grade teachers' students will end up in the same fourth grade next year. What problems will the variation in third-grade math teaching methods create for the fourth-grade teacher? At the very least, one would expect to find a lot of confusion, not to mention wasted time, inefficiency and demoralization.

Therefore, Point 6 addresses training in not only the essential statistical methods, but also in reducing variation in work and teaching methods. When planning for any training, however, it is important to keep the following formula in mind:

$$\text{Training effectiveness} = f(\text{Quality of the subject matter}) \times (\text{Probability of use})$$

This equation states that the effectiveness of any training will be a function of the quality of the subject matter times the probability of use. In other words, it doesn't help to teach employees a new technique if they go back to work and have no opportunity to apply the new technique. Probability of use, zero; training effectiveness, zero. I often warn business people to avoid plant-wide training binges on the topic of SPC (statistical process control). If employees get back to their jobs and there are no control charts to interpret or maintain, the effectiveness of the training will be zero, no matter how many bells and whistles they build into the training program. Then, when it's time to introduce the charts, management will have to provide re-training – a form of non-value-adding rework – and there's no time for rework!

Scherkenbach put it a little differently. "If training is so important, why hasn't it been effective? It hasn't been very effective because of a series of inhibitors. Because management has not changed [organization] systems to use the training, untold millions of dollars are being wasted on training."⁴

One way leaders can provide a high probability of use for the training is by placing trainees on process improvement project teams. Leaders must also pay attention to identifying and removing barriers to people using the new tools; among them barriers between different groups in the district (Point 9) and numerical goals and standards that drive short-term thinking and fire-fighting (Points 10 and 11) as opposed to improvement of processes (Point 5).

Conclusion

Please note that in the brief elaboration on the sixth obligation above, reference was made to *five* of the remaining thirteen points. An equal number of obligations were referenced while examining Point 5 earlier in this paper. As noted in an earlier blog, that's because the 14 Obligations are not a cafeteria plan. They are intricately, intimately interwoven into a complex model of a healthy environment for work, for learning and for continuous improvement. Future blogs will elaborate on other points in the model. I hope you will enjoy this series and share the information with educators in your community.

Notes

¹H. Gitlow and S. Gitlow, *The Deming Guide to Quality and Competitive Position*, Prentice-Hall, Englewood Cliffs, NJ (1987), p. 77.

²W.E. Deming, *Out of the Crisis*, MIT Center for Advanced Educational Services, Cambridge, MA (1986), p. 51.

³W. Scherkenbach, *The Deming Route to Quality and Productivity: Road Maps and Roadblocks*, Mercury Press, Rockville, MD (1988), p. 95.

⁴*Ibid.*, p. 91.