How the Ideas of a 1950s Statistician Taught me more about Management than Business School

Date and Time : Wednesday April 11, 2018 5pm - 6pm
Room: 205C | Elevated Third

5pm *If people are still coming in the room, announce that you'll be giving them a few more minutes to trickle in. If not, get started!*

Welcome

Introduce self
- Owner of CASK Communications
- Instructor in Digital Design and Graphics at CSCC
    - Teach this session as a lesson

5:10 Introduce W. Edwards Deming
- Born in 1900
- PhD in math and physics from Yale
- Developed the sampling techniques still used by the U.S. Department of the Census and the Bureau of Labor Statistics
- Awarded the National Medal of Technology in 1987
- National Academy of Sciences Distinguished Career in Science award in 1988
- He was brought to Japan by General Douglas MacArthur who was frustrated with Japan's postwar economy (couldn't even complete a phone call)
- He started teaching Japanese industrialists (like the co-founder of Sony) statistical process control

5:15 Red Bead Experiment (https://www.youtube.com/watch?v=JeWTD-0BRS4)
Statistics = Metrics = Success
How much control over our own success do we have?

Round 1 - Manager and 4 Workers
- 3 rounds and then fire the 2 lowest performers
- 3 rounds with double shifts
- Company goes out of business

Round 2 - 4 Workers (based on this article)
- New customer!
- Rehiring workers but no management (self-directed teams - Holacracy)

5:30 Red Bead Experiment Recap
- The metric for success was applied, but because workers had little control over the process, their ability to succeed was essentially limited.
- Three choices
    - Improve the system
    - Distort the system
    - Distort the data

5:35 14 points of management

1. **Create constancy of purpose for improving products and services.**
   Trust your staff to make decisions. Zappos. Worthington Industries.
   a. Plan for quality in the long term.
   b. Resist reacting with short-term solutions.
   c. Don't just do the same things better – find better things to do.
   d. Predict and prepare for future challenges, and always have the goal of getting better.

2. **Adopt a new philosophy.**
   a. Embrace quality throughout the organization.
   Put your customers' needs first, rather than react to competitive pressure – and design products and services to meet those needs.
   b. Be prepared for a major change in the way business is done. It's about leading, not simply managing.
   c. Create your quality vision, and implement it.

3. **Cease dependence on inspection to achieve quality.**
   a. Inspections are costly and unreliable – and they don't improve quality, they merely find a lack of quality.
   b. Build quality into the process from start to finish.
   c. Don't just find what you did wrong – eliminate the "wrongs" altogether.
   d. Use statistical control methods – not physical inspections alone – to prove that the process is working.

4. **End the practice of awarding business on price alone; instead, minimize total cost by working with a single supplier.**
   a. Quality relies on consistency – the less variation you have in the input, the less variation you'll have in the output.
   b. Look at suppliers as your partners in quality. Encourage them to spend time improving their own quality – they shouldn't compete for your business based on price alone.
   c. Analyze the total cost to you, not just the initial cost of the product.
   d. Use quality statistics to ensure that suppliers meet your quality standards.

5. **Improve constantly and forever every process for planning, production and service.**
   a. Continuously improve your systems and processes. Deming promoted the Plan-Do-Check-Act approach to process analysis and improvement.
   b. Emphasize training and education so everyone can do their jobs better.
   c. Use kaizen as a model to reduce waste and to improve productivity, effectiveness, and safety.

6. **Institute training on the job.**
   a. Train for consistency to help reduce variation.
   b. Build a foundation of common knowledge.
   c. Allow workers to understand their roles in the "big picture."
   d. Encourage staff to learn from one another, and provide a culture and environment for effective teamwork.

7. **Adopt and institute leadership.**
    a. Expect your supervisors and managers to understand their workers and the processes they use.
    b. Don't simply supervise – provide support and resources so that each staff member can do his or her best. Be a coach instead of a policeman.
    c. Figure out what each person actually needs to do his or her best.
    d. Emphasize the importance of participative management and transformational leadership.
    e. Find ways to reach full potential, and don't just focus on meeting targets and quotas.

8. **Drive out fear.**
    a. Allow people to perform at their best by ensuring that they're not afraid to express ideas or concerns.
    b. Let everyone know that the goal is to achieve high quality by doing more things right – and that you're not interested in blaming people when mistakes happen.
    c. Make workers feel valued, and encourage them to look for better ways to do things.
    d. Ensure that your leaders are approachable and that they work with teams to act in the company's best interests.
    e. Use open and honest communication to remove fear from the organization.

9. **Break down barriers between staff areas.**
    a. Build the "internal customer" concept – recognize that each department or function serves other departments that use their output.
    b. Build a shared vision.
    c. Use cross-functional teamwork to build understanding and reduce adversarial relationships.
    d. Focus on collaboration and consensus instead of compromise.

10. **Eliminate slogans, exhortations and targets for the workforce.**
    a. Let people know exactly what you want – don't make them guess. "Excellence in service" is short and memorable, but what does it mean? How is it achieved? The message is clearer in a slogan like "You can do better if you try."
    b. Don't let words and nice-sounding phrases replace effective leadership. Outline your expectations, and then praise people face-to-face for doing good work.

11. **Eliminate numerical quotas for the workforce and numerical goals for management.**
    Apply metrics to the process not to the people.
    a. Look at how the process is carried out, not just numerical targets. Deming said that production targets encourage high output and low quality.
    b. Provide support and resources so that production levels and quality are high and achievable.
    c. Measure the process rather than the people behind the process.

12. **Remove barriers that rob people of pride of workmanship, and eliminate the annual rating or merit system.**
    a. Allow everyone to take pride in their work without being rated or compared.
    b. Treat workers the same, and don't make them compete with other workers for monetary or other rewards. Over time, the quality system will naturally raise the level of everyone's work to an equally high level.

13. **Institute a vigorous program of education and self-improvement for everyone.**
    a. Improve the current skills of workers.
    b. Encourage people to learn new skills to prepare for future changes and challenges.
    c. Build skills to make your workforce more adaptable to change, and better able to find and achieve improvements.

14. **Put everybody in the company to work accomplishing the transformation.**
    a. Improve your overall organization by having each person take a step toward quality.
    b. Analyze each small step, and understand how it fits into the larger picture.
    c. Use effective change management principles to introduce the new philosophy and ideas in Deming's 14 points.

5:50 Questions?

6:00 End!