Lean Production, Quality, Change and Training - Take a Systems Approach
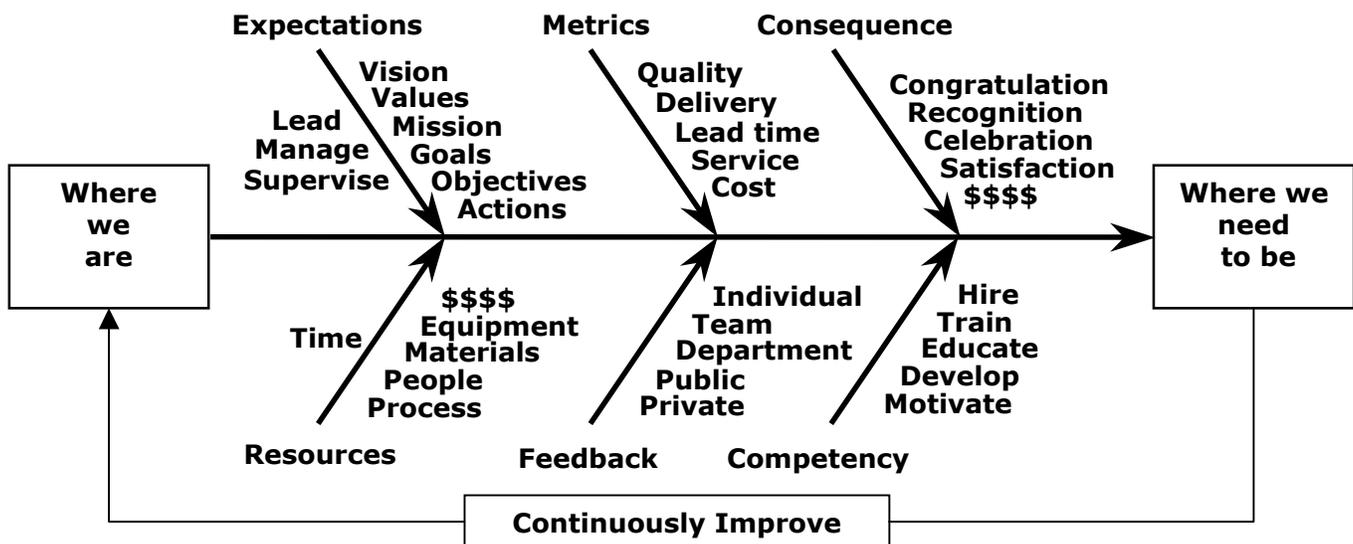
Howard Sommerfeld

I've been involved in a number of Quality-based change initiatives over the years, Value Engineering, Statistical Process Control, Total Quality Management, Continuous Improvement, Motorola Six Sigma, and Lean Production. Each of these requires a close analysis of methods, procedures, and processes, and requires changes and improvements to how the work is done. Change seems to be the one constant in business today, and change always seems to drive a need for training.

In conducting training needs analysis at any level, we need to understand that training might not be the solution, at least not the whole solution. Training is normally employed with the expectation of changing individual performance. While training can, and does, change the ability of individuals to perform, on-the-job performance also depends on other factors that form a complex interconnected human performance system. For any system to produce a desired performance output, there are always a number of factors that must be managed.

Six-factors for human performance

The following is a six-factor system model for human performance. In principle if you manage all six well, you will get the desired performance. If you ignore any of the six, the desired system performance becomes less likely. Training can indeed be an important part of a system solution, but if other parts are not provided, training may not be effective.

Expectations — Lead Manage Supervise — Vision Values Mission Goals Objectives Actions

Metrics — Quality Delivery Lead time Service Cost

Consequence — Congratulation Recognition Celebration Satisfaction $$$$

Where we are → **Where we need to be**

Resources — Time — $$$$ Equipment Materials People Process

Feedback — Individual Team Department Public Private

Competency — Hire Train Educate Develop Motivate

Continuously Improve

Performance System Model   ©HS1104

1. Make expectations clear:

The expected outputs, and actions to produce results, must be made crystal clear. These include vision, values, mission, roles, goals and objectives, action plans, milestones and standards. If you don't tell them what is expected, don't expect results.

2. Provide necessary resources and conditions:

No one can produce the expected results if they do not have the process, methods, tools, materials, space, time, money, and people to do the job. A workplace that is badly designed, uncomfortable or unsafe also makes it difficult to perform. Given the means, they can deliver performance. If not...

3. Measure the performance of the system:

In order to determine if expected results are being achieved we need to measure the performance outputs. It might also be helpful to monitor in-process indicators, which affect system outputs. Using metrics we can identify progress toward targets, verify performance as desired, or identify problems and opportunities for improvement. We all pay attention to what gets measured.

4. Communicate progress and results:

Continuous and visual feedback on the performance and results achieved by the team and system allows for quick recognition and correction of problems and implementation of improvements. If individuals do not know how well the system is working it is difficult to achieve the desired results, much less make improvements. Performance knowledge empowers improvement.

5. Provide appropriate incentives:

Consequences are important. Positive rewards for good performance, congratulation, recognition and celebration, promote and encourage the behaviors that produced the results. Take care to avoid negative consequences for positive performance, or benefits for negative performance. If it felt good, they'll want to do it again.

6. Develop necessary competency:

Competency is the ability of an individual or team to successfully perform a specific task or activity. Sometimes if you are lucky, you can hire a competency off the street. More often development through training and practice is required. Competencies are built through learning activities, and through experience. A competency requires skills, knowledge, and attitude sufficient to do the job. A competency has observable measurable outputs and behaviors. An individual must have the capacity, both mental and physical to learn and to perform the task or activity. If you've got the skills and knowledge you can do the job.

The next time you ask how to improve performance, take a systems approach and remember to consider how to manage all six human performance factors.

We get exactly the results we manage for.

About the author:

Howard Sommerfeld has an extensive background in training that includes over twenty years experience in training management with major telecom equipment manufacturers. He has been responsible for development of classroom, computer-based, web-based, and distance e-Learning initiatives, and has a depth of understanding of manufacturing and training management issues. He is keenly interested in trainer training, blended learning approaches that ensure learning transfer to workplace performance, human performance systems, and in demonstrating return on investment for training.

Howard is currently Director of Product Development at Automated Learning Corporation.

hsommerfeld@automatedlearning.com   www.automatedlearning.com/products/welcome.html