



Sustain the Gains of Lean Improvements

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Visual Workplace Critical To Promoting Long Term Continuous Improvement

If your company uses lean practices to improve plant operations and business performance, or if you're considering a lean transformation, you're not alone. In recent years, more companies are adopting lean as a continuous improvement method to improve profitability, enhance customer satisfaction and maintain a competitive edge in the marketplace.

Within lean practices is a growing concept called "visual workplace," also known as visual factory or visual management, and it's a critical part of any lean initiative. Visual workplace helps sustain lean operations by using visual tools to ensure that improvements remain clearly visible, readily understood and consistently adhered to long after the lean event is over.

Opportunities to Reduce Waste

Businesses are often surprised to learn that only a small fraction of their activities actually add value for their customers. In a lean workplace, "waste" is any activity that adds no value for a customer. It's not uncommon that 50 percent or more of a facility's activities are considered waste!

A primary cause of waste is information deficits – employees simply lack the knowledge they need to do their jobs efficiently and effectively. They may not fully understand their priorities or deadlines, nor the proper way to perform tasks. This leads employees to waste valuable time and motion searching, asking, waiting, retrieving, reworking or just plain giving up.

A visual workplace is self-explanatory: it displays information that's visible at a glance and at the point of use, eliminates questions, and ensures that best practices are followed. By clearly displaying information such as instructions, warnings, standards and other critical operations knowledge, visual tools help to properly guide employee actions. These tools also make it easier to detect abnormalities in products, equipment and processes, and provide workers with real time feedback on where they stand against goals and expectations.

According to Gwendolyn Galsworth, Ph.D. and author of "Visual Workplace, Visual Thinking",* an effective implementation of visual systems at client companies has resulted in the following dramatic improvements:

- 15% increase in throughput
- 70% cut in materials handling
- 60% decrease in floor space
- 80% decrease in flow distance
- 68% reduction in rack storage
- 50% decrease in annual physical inventory time
- 96% decrease in defects

Clearly visual workplace plays a key role in creating the empowered, creative and aligned work culture that is the end goal of any lean transformation.

Visuality Encompasses All Lean Concepts

Visual workplace techniques represent a critical component of many lean concepts, including 5S, Standard Work, Total Productive Maintenance (TPM), Just-In-Time (JIT) Inventory Management and Kanban-Based Pull Production. Here are some ideas on how visual devices can be put to profitable use in your lean initiatives.

5S Workplace Organization – This technique focuses on sorting, cleaning and organizing to set the foundation for a stable work environment. Visual devices help maintain long-term visual order by clearly identifying aisles, storage areas and locations for equipment, tools, parts and products. Visuals such as bin markers, floor marking tapes, shadow boards and tool ID labels ensure that items are consistently returned to their proper place, eliminating wasted search and retrieval time.



Standard Work and Quick Changeover – Visual tools ensure that workers readily understand proper setup, operating, and inspection procedures. Instead of just storing information in binders and computer drives, post critical information clearly right at the point of use. In mixed work environments, use color-coding to identify the proper parts, tools, jig for the job at hand. You'll simplify training, prevent mistakes, reduce cycle times and improve safety.



Total Productive Maintenance – Identifying abnormalities at a glance is a key objective of TPM. Once equipment has been center lined, visual devices such as multi-color gauge labels and oil level indicators can clearly indicate when operating conditions are out of spec. Visual devices also help machine operators perform autonomous maintenance tasks by clearly identifying PM points and indicating the correct use of grease and lubricants.



JIT and Kanban – A key goal of lean is to eliminate excess inventory. The concepts of Just-In-Time Inventory Management and Kanban-Based Pull Production help achieve these goals by ensuring that product is produced only in the time and amount needed. Visual reorder indicators control stocking levels for inventory, and kanban cards are used to prevent excess production.



Lean Metrics and Management – Open communication is a hallmark of a lean business. Employees need to know what is expected of them and how they're

performing. Visual displays such as scoreboards, scheduling charts, team communication boards, and recognition displays all help to keep information flowing between employees, departments and upper management.



Make Your Own Visuals

The right printing system can be an essential tool for creating a visual workplace, allowing you to make signs, labels, tags and more on demand.



Two printers popular among lean and visual workplace practitioners include Brady's versatile benchtop GlobalMark® printer and the portable HandiMark® printer. Some of their benefits include:

- **Simple and Fast:** Eliminate cutting, drawing, and preparing visual devices by hand. Visuals are quickly and easily designed on screen, then printed and automatically cut to size.
- **Print On Demand:** No time wasted placing orders or waiting for visuals to be delivered from outside vendors.
- **Economical:** Create customized visuals for significantly less than those produced at sign shops or commercial printers.
- **Professional:** Create sign-shop quality visuals that are easy to read at a glance. Eliminate amateurish drawings and hard-to-read handwriting.
- **Durable:** Brady thermal transfer printers provide better abrasion, moisture, chemical and UV resistance than inkjet or laser printing. Moreover, visuals stick and stay stuck to even curved and textured surfaces like pipes, walls and floors.
- **Standardized:** User-customizable templates promote consistency and ensure that visual devices

used by different groups and sites have the same look and formatting.

- **Colorful:** Multiple color capability adds impact and clarity to visual markers.

Whichever lean techniques you use, visual thinking can reinforce and sustain improvements throughout your plant. There's much to be gained by creating a workplace where employees are guided by visual information that tells them at a glance what to do, how to do it properly, and where to quickly find what they need.

The accompanying boost in productivity, quality, capacity, on-time delivery and equipment reliability will make your facility leaner than ever.

**For more info on Dr. Gwendolyn Galsworth, her company QMI or her book "Visual Workplace, Visual Thinking" visit www.visualworkplace.com.*

