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*TBM recently introduced Essential Lean Learning—a comprehensive online training program for essential lean learning. Online training is an effective way to build awareness and understand across a broad base of employees. Visit [www.tbmcg.com/ELL](http://www.tbmcg.com/ELL) to see the full eLearning curriculum. The Progressive 5S module can be purchased individually or as part of a comprehensive 12-module learning program.*



With so much emphasis these days on becoming “lean” in the workplace, it is hard to believe that most people still refer to 5S as simply housekeeping. More properly defined, 5S is a process for creating and maintaining a safe, organized, clean, high-performance workplace. Promoting 5S doesn’t mean just picking up the trash, though that’s certainly a part of it. The emphasis is on being organized, designating a place for necessary items, and on being disciplined, ensuring that all items and equipment are always returned to their proper place.

In many organizations, 5S is implemented as an afterthought—another continuous improvement element on the “lean transformation checklist.” However, 5S must be viewed as a key prerequisite in preparing the culture for the necessary repeatability of standard work. But the simple truth is that if an organization is unable to manage 5S—and that includes maintaining it—then it’s unlikely they’ll be able to manage the rest of a lean journey as well.

### Productivity and 5S

Toyota didn’t rise to the top just by chance. Toyota is engaged in a never ending pursuit of waste elimination. Toyota understands that the largest, single contribution to increased productivity is eliminating nonvalue-added time. A clean, well-organized workplace and the discipline to keep it that way solidifies the foundation upon which all other lean activities and productivity achievements are based. Implementing 5S has multiple benefits in that it:

- creates the proper environment for standard work.
- is a prerequisite to perfect quality.
- encourages visual control.
- helps identify waste.
- places a high value on safety.
- promotes employee satisfaction.

Historically, 5S, was derived from the Japanese words that describe the five steps to creating an organized workplace. This “traditional” approach to 5S can be difficult to implement, audit, and sustain. When an organization takes the traditional approach to 5S, it tends to “mix and match” all five levels at once, which often leads to confusion and incomplete implementation of the program. Even if an organization can be reasonably successful with such an approach, the subjectivity of audits still presents a significant roadblock. For example, if an evaluator audits an area and records a 5S score of 2.5, what exactly does that mean? How does it compare to another auditor’s score of 2.5 for a different area? Auditing progress and sustainment under a traditional 5S system often results in a wide range of scores that places both the program and its success in questionable standing.

### Progressive 5S

The essence of Progressive 5S is the ability to pair each step of the process with a specific task or activity along with a key discipline or behavior that would need to be performed for that step. By focusing in on one level at a time, it becomes significantly easier to both implement and monitor results. In short, we could not only reduce the amount of time to progress up the ladder to full compliance, but also be able to quantify results for performance tracking and to aid in ensuring sustainment. (See graph below.)

This simplified approach relating observable activities and behaviors offers one big advantage: it allows practitioners to concentrate on their 5S implementation one level at a time until the step is fully implemented and sustained. This allows the whole process to be viewed as more acceptable from the perspective of the workforce as well as more manageable from a plantwide perspective. If

| Step        | Activity       | Behavior   |
|-------------|----------------|--|
| Sort        | Red tag        | Remove unnecessary items                           |
| Set         | Assign & label | Designate a “home” for every item in the work area |
| Sustain     | Return         | Put it back where it belongs after use             |
| Simplify    | Productivity   | Eliminate nonvalue-added effort                    |
| Standardize | Plantwide      | Expand ownership to everyone to leverage the gains |

people understand the required behaviors needed to perform at a particular level, it's much easier for them to incorporate those behaviors as a regular part of their routines. The underlying logic to progressive 5S is that successes and opportunities can be quantified at each step thus providing a clear roadmap to progressing up to the next level.

### Step 1: Sort

So how does one move or “progressively improve” from one level to another? One key advantage of progressive 5S is the simplicity of scoring at the various levels. With Level 1, as with all of the 5S steps, ten categories are defined, along with examples that detail what items in an audited area are considered necessary to its operation. Each of the ten categories can be tailored to any given area be it on the production floor or in an office. Of course, a clear definition of necessary and unnecessary items must be discussed and agreed upon. For example, one category in the list of 10 might apply to furniture and equipment, another might refer to personal safety equipment and a third might audit documentation and instructional guides, and so on. If only the items that are supposed to be in that category are there, then the area gets a score of 0.1 for that category. However, if an item that shouldn't be there appears in the area, then the score for the category will be a 0, and the auditor will list those “extraneous” items so it is clear as to what needs to be removed and for what reason. No category can receive a score of 0.1 if any violations are observed in that category.

By using the defined ten categories and a simple scoring system of 0.1 for categories that meet the criteria and 0 for areas that do not, it's easy to keep track of where an area stands with respect to the initial first step of 5S, or “Sort.” When an area has achieved a score of 1.0 (that is, a score of 0.1 in each of the 10 categories), then it has mastered that level and is ready to progress to the next step. Each level's score is added to the those of previously achieved levels, continuing all the way up to 5.0 for all five levels; however each step must be mastered before moving on to the next higher level.

### Step 2: Set

Everyone in an area agrees where each item in that area will “live.” This is especially crucial for areas that have multiple users—placement of tools and equipment should make sense for their intended use, with frequency of use and ergonomics being given main consideration. Once a location has been determined, the location should be clearly labeled. It's helpful to identify and label fire containers, equipment, and furniture; desktop and flat-surface items; aisles; storage containers; and tools, jigs, and fixtures.

### Step 3: Sustain

When an area is scored for compliance at the second level of 5S, it's possible to get a total score of 2.0, that is, all unnecessary items have been removed and all items have a designated “home,” yet this score does not indicate or ensure that employees will actually place the items in the areas that are so designated. This behavior is evaluated in third step of Progressive 5S. At level 3, “Sustain,” the scoring categories highlight those items that are actually located where they are supposed to be when not in use. In this step, the importance of creating and sustaining operational steps or standard work becomes critical to the consistency and sustainment of planned operations.

### Step 4: Simplify

Level 4 addresses eliminating nonvalue-added effort. Originally, when we launched the Nissan facility in Smyrna, Tennessee, we were allotted a ten minute clean-up period at the end of each shift. But at level 4, we were challenged with the question, “What is it that requires ten minutes of clean up every day?” If workers have the discipline to keep their work area organized throughout a shift, then how much time would really be required to clean up at the end of a shift? By taking this view at Nissan, we were able to add nine minutes back to each shift, and those minutes contributed to increased productivity.

To implement level 4, the root cause(s) of “nonvalue-added time” issues must be discovered and then effective countermeasures must be implemented to eliminate

recurrence. Of course, eliminating the non-value-added activity is only a prerequisite to the most important step of substituting a value-added activity in order to realize true productivity improvement.

### Step 5: Standardize

Level 5 expands the view from a particular area to the entire organization. This includes evaluating the spaces between work areas, both on the shop floor and in office areas as well as the surrounding plant property, including the parking lot, the loading dock, and other “neutral” areas. If people in specific areas begin to take on these “outside areas,” or the spaces where their areas actually interface, then the entire site takes on a greater responsibility and ownership of promoting a philosophy of organization and discipline. Further, this emphasis on plantwide 5S creates a significant impact on site visitors (i.e., clients and potential customers) whose first impression is often the most lasting memory of the entire visit. At level 5, the entire organization, including the status of companywide communication, training, auditing, and adherence to standard work, is under scrutiny.

### A “House” in Order

Inconsistent audits, sluggish progress, and inflated scores are likely under the traditional 5S system, which tends to suffer from lack of sustainment and subjectivity. These shortcomings often mask opportunities, diffuse program effectiveness, and erode management's credibility. If you want to establish an effective and lasting 5S program, one that will enable your entire organization to move forward with great strides on your lean journey, consider implementing Progressive 5S. Progressive 5S is a logical, step-by-step approach to organizing a high performance workplace. Progress is completely quantifiable, which makes it easy for everyone to understand and accept. With such a logical approach to building a foundation for high performance, who wouldn't want to put their house in order as they prepare to entertain the global marketplace? ■