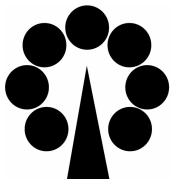

Satakunnan ammattikorkeakoulu

Jonne Lehti

INSTITUTING A 5S-SYSTEM

Liiketalous ja tietojenkäsittely Pori

Liiketalouden koulutusohjelma

TQM

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INSTITUTING A 5S-SYSTEM

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TIIVISTELMÄ

Tässä työssä kuvataan yleisimpiä syitä 5S-Järjestelmän käyttöönottoon yrityksissä, järjestelmän käytöstä tulevia hyötyjä, sekä järjestelmän käyttöönottoon vaaditut vaiheet. Valitettavan usein eri toimintaympäristöissä hukataan aikaa, vaivaa ja usein myös muita resursseja vain koska asiat eivät ole siellä missä niitten tulisi tai oletetaan olevan. Pahimmissa tapauksissa saattaa koko yrityksen toiminta seisahtua pitkiksikin ajoiksi, vain koska jotain tärkeää joudutaan etsimään. 5S-järjestelmä auttaa eliminoimaan etsintään kuluvaa aikaa, helpottaa inventaarion pitämistä esim. työkalujen suhteen. 5S-järjestelmä auttaa myös siisteyden ja järjestyksen ylläpidossa ja auttaa tekemään työpaikan ympäristöstä edustavamman ja mukavamman.

INSTITUTING A 5S-SYSTEM IN A WORKSHOP ENVIRONMENT

Lehti, Jonne
Satakunnan ammattikorkeakoulu, Satakunta University of Applied Sciences
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ABSTRACT

In this thesis the most common reasons that might lead to the implementation of 5S-system are described, in addition to the benefits gained, and the necessary steps that are needed for instituting it. Too often a lot of time, effort and in some cases other resources are wasted in various working environments just because things aren't where they should be or we assume them to be. In worst cases the whole operations of companies might be halted for extended times just because we have to search for something vital. The 5S-system helps to eliminate the waste of time spent looking for things and eases the keeping of inventory on things like tools. 5S-system also helps with keeping cleanliness and order and helps to make the workspace more presentable and comfortable.

FOREWORD

My thesis was originally meant for the Purso-Tools unit in Pori, but due to circumstances the end result was something a bit different. We tried and in the end failed to institute 5S-system into the plant in question, but the thesis will get done nevertheless. What happened goes to show that instituting project like 5S isn't quite as simple as you might assume from the offset, and I suppose both parties involved in the project had somewhat unrealistic expectations on how the project was to proceed. It also stresses how important it is to take the correct approach to it from the start, and not try to figure it out as we go.

In hindsight though, I think I learned more from the failure than I would have learned if the project had gone completely according to plan. Perhaps the failures of past can help avoid failures of the future. It is after all said that those that don't learn from the mistakes of the past are doomed to repeat it.

I'd like to thank Purso-Tools for the opportunity and especially Jari Jeskanen and Mari Hakala who helped me with the project.

Jonne Lehti

17.05.2010

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1 PURSO-TOOLS OY

1.1 Basic information

Purso-Tools Oy consists of three units located in Pori, Pirkkala and Oitti. The company is part of the Purso-group which also includes Purso Aluminium and Purso Components. Purso-Tools employs 150 people and has the annual revenue of 30 million Euros. The company's business areas include system deliveries in addition to tools- and parts manufacture. The Pori unit specializes in producing connecting rods and camshafts of varying sizes and additionally produces some other varying engine parts. The Pirkkala unit specializes in system deliveries and the production of fasteners and machine parts. The Oitti unit mainly produces tools and provides maintenance for moulds. The company has instituted a new service strategy and also has a certified ISO 9001:2000 quality system which shows the company's ability to deliver products that meet the customer demands and the goal to improve customer happiness.

1.2 History

Purso Oy was founded in 1972 from the basis of Suojapinta Oy. The first aluminum piping line was started in 1974 after which the company was expanded a few times before the first company acquisition. Tools Pirkkala was merged with Purso Oy in 1977. Between 1980 and 1990 made several acquisitions which included Tools Tampere, Tools Pori and Tools Oitti which were all merged to Purso. Operations in the Tools group happened under the name of Purso Oy Tools until 1994 when the company was incorporated. After 1995 the operations in Pori, Pirkkala and Oitti were conducted under the name of Purso Tools Oy.

2 INTRODUCTION TO 5S-SYTEM

Anyone who has ever worked in an office or workshop has surely witnessed or been involved in one of the following (or similar) situations: The manager responsible for manufacturing can't find an available meeting room as he's towing a prospective customer around the office. A customer service representative searches 20 minutes before she finds the customer file she needs (while customer waits on the phone?). Five of size 4-parts are delivered and stacked in the cabinet, on top of the four already there, but there are no size 5-parts left. You can't find a certain measuring tool anywhere, so you ask John for one because you know he hoards everything.

What do all these events have in common? If you answer was that they happened at your workplace last week, you wouldn't be alone. These are common occurrences that waste time and money, and no company can afford that kind of waste. The real tragedy is that while great deal of attention and effort has been focused on machine effectiveness, shop floor efficiency and just-in-time production, little attention has been focused on the role of office and the small improvements of the workshop that might save considerable time and might not require huge investments for pretty good returns. The great thing about 5S is that it is a tool that can be customized to work for everyone regardless of the size of the company or the nature of the industry. And it is a tool that can bring immediate results.

The activities at the heart of the 5S-system (organizing, ordering, cleaning, standardizing and sustaining) are completely logical. They are basic rules for managing any effective workplace. However, it is the systematic method with which the 5S-system approaches these activities that makes it unique.

2.1 A brief history of the 5S-system

A systematic approach to organizing ordering and cleaning had its origins in post-World War II Japan – probably in the mid 1950s. At the time Japanese

manufacturing companies were forced to produce with very slim resources, so they develops a shop floor method to make every scrap count while wasting nothing.

Originally there were only four activities in the Japanese system. These activities, each beginning with the letter S, were:

1. Seiri (cleaning up)
2. Seiton (organizing)
3. Seiso (cleaning)
4. Seiketsu (systematic cleanliness)

Later a fifth activity was added called Shitsuke (discipline), which completed the elements that are now known as 5S.

As the 5S system spread throughout the United States, it became clear that changes had to be made if it was going to be successful in a culture outside of Japan. Even the meaning of some of the activities had to change. These changes evolved during application in a hundreds of companies and thousands of workplaces. For example it was found that in a union environment “holding the workers feet to the fire” was counterproductive. It was also discovered that management and worker buy-in to the 5S system had to be steps 1 and 2 and western workers had to be allowed to mix the personal with the professional. During the process a certain level of separation anxiety emerged when people were asked to rid themselves of unneeded items. To counter this, the 5s Auction was developed, allowing employees to buy items for a dollar or less.

Today the 5S-system retains its fundamental power to change the workplace and involve everyone in improvement. It also retains the five activities beginning with the letter S with following activities:

- ***Sort*** involves sorting through the contents of an area and removing unnecessary items. The real meaning of Sort is found in the saying “When in doubt, move it out.”
- ***Set in Order*** involves arranging necessary items for easy and efficient access, and keeping them that way. The essence of Set in Order is found in the saying “A place for everything, with everything in its place.”

- ***Shine*** involves cleaning everything, keeping everything clean and using cleaning as a way to ensure that the area and equipment are maintained as they should be. The essence of Shine is found in the saying “Make it clean and keep it clean.”
- ***Standardize*** involves creating guidelines for keeping the area organized, orderly and clean, and making the standards visual and obvious. The essence of Standardize is found in the saying “If you can’t see, you don’t know, and if you don’t know, you can’t control.”
- ***Sustain*** involves education and communication to ensure that everybody follows the 5S standards. The essence of Sustain is found in the saying “Maintain the gain and forget the blame.”

From its modest beginnings as a housekeeping tool, the 5S system has evolved into a method for establishing and maintaining a high performance company. The best way to illustrate this is via an example.

Consider the blight of Lee Blake Precision Inc in Jackson, Michigan. It once took the company more than two days to process a customer order. This was especially frustrating for the customer service reps. Finding orders was like an Easter egg hunt because they came in at all times and in all forms (mail, fax, phone, e-mail, orally through the sales department, even on a Post-It). Then after entering orders into the computer, the reps had to walk the paperwork to the production, material handling and quality offices. If changes or mistakes occurred (which they usually did), the work –and time- was doubled.

Now Lee Blake processes each order in less than 10 minutes. Explained another way, lead time for order processing has been reduced by 99 percent. Walking has been reduced by more than 95 percent, use of paper has been reduced by nearly 80 percent and employees and customers are much happier.

2.2 Why the 5S System is Necessary

Companies are like living organisms. They change and grow. They respond to their environment. Client specifications are always changing, new technologies continue to develop, and employees come and go. Business becomes more competitive each year, and costs continue to rise.

Challenged by these conditions, companies must find ways to survive. As living organisms, if they do not make changes in response to their environment, they will fail. Moreover changes must be made at every level of organization. The faster an organization can make them, the more money it can save and the quicker it can respond to its customers. If you do not treat your company like a living organism, it will eventually accumulate waste, and it will take longer and longer to perform your work. It will also make work more onerous and time consuming for those who work with you or for you.

How often have you heard an employee say “This is a waste of time, but I guess I have to do it”? This statement tells you everything you need to know about why the 5S System is necessary:

- The person closest to the activity knows that time (and money) are being wasted;
- The person doesn’t feel that he or she can improve the situation;
- The waste has become a part of the “normal” everyday environment;
- The waste is no longer seen as a problem; and
- The waste continues and probably gets worse.

In one company for example, a receiving clerk noticed that the machining tool vendor delivered the same number of tools every week, regardless of the number used. The purchasing agent said he had a reason for maintaining the order amount – discounts. “But what about the waste of space?” asked the clerk. “And why pay for what we don’t need? Plus the extras are getting damaged because we keep moving them around. We’re losing 10 percent of our stock.” The clerk was close to the action and understood the problem, but no one would pay attention. So she stopped talking.

When 5S was implemented, it gave her a voice and a method to improve a problem she lived with every day.

In fact, the true purpose of 5S is to eliminate waste. If you do that, you will have an efficient and profitable company that is also more enjoyable to work in.

2.3 The 5S Target: The 7 Deadly Wastes Found in Most Companies

Reducing waste in the company translates into working to eliminate everything that increases the cost or time of doing work. This process can be applied to countless problems. By eliminating waste step by step in many small ways, you will be able to cut costs and time dramatically.

Five S defines seven types of waste that are so costly that they have been called “The 7 Deadly Wastes.” These 7 Deadly Wastes are:

1. Correction and rework
2. Waiting
3. Unnecessary motion
4. Over processing
5. Equipment downtime
6. Inventory and storage
7. Inspection

Most companies find that only about 5 percent of work is value added, the rest is non-value added or wasted activity. In a world-class organization administrative activities operate at a level of about 50 percent value added capacity. Achieving this level means paying attention to waste and reducing it wherever and whenever possible.

2.3.1 The waste of correction and rework

This category of waste refers to all the time spent redoing, correcting or reworking a job. The work should have been performed correctly the first time. Waste results in the expenditure of additional time, materials, energy, equipment and labour. For example an incorrect entry on a job router concerning the type of gauge needed on that job can result in production delays, late deliveries or even overtime expenses because the right gauge must be located after the job is already started.

2.3.2 The waste of waiting

Waiting for anything (people, paper, machines or information) is waste. Waiting means that there is idle time causing work to stop. It means that people and operations are idle. It is important to eliminate the root causes of this waste as soon as you can. Usually it is like a “low hanging fruit” – somewhat easy to eliminate and ripe for the taking. In addition, it will lead you to other problems that you didn’t know you had.

For example, the marketing department in an automotive parts company encountered delays in creating its fall brochure. It had to wait and wait for a picture of a new part. The picture was delayed because engineering couldn’t decide on the exact prototype and did not want to release less than perfect picture. The reality here was that their choice would not matter – the final picture would look the same regardless of the prototype selected. The root cause was easy to spot: lack of communication.

2.3.3 The waste of unnecessary motion

Any movement (of people or goods etc.) that does not add value is waste of motion. Ineffective job processes and layout design are often responsible for creating more walking, reaching or moving things around than is necessary. This type of waste can be created by poor equipment layout or poorly placed supplies. To eliminate this waste, begin by asking whether an activity serves a legitimate purpose. If it does, try to reduce the motion involved by redesigning the layout to minimize unneeded motion.

2.3.4 The waste of over processing

Putting work or effort into something a customer doesn't want or ask is waste. Over processing does not add value for the customer and the customer will not pay for it. The way to eliminate this waste is to ask "What is the basic function of this procedure?" and "Am I doing too much work?"Sometimes you will find that you are doing too much work. Some typical examples can illustrate this:

- Providing a three-ring binder and a special font cover for a report that is ultimately going to be removed from the binder and filed in a cabinet.
- Printing out a 100-page report when only the first page (summary) is used
- Requiring two signatures on an approval document when one will suffice
- Handling an incoming order more than once

One parts manufacturer in the aerospace industry printed weekly detailed statistical reports for each of its 24 departmental managers. The reports contained a summary page and graphs and charts for 16 business improvement measures. The managers receiving these reports needed only the summary page. Furthermore, they had computer access to the data in the reports anyway. The problem was discovered and solved as a measure to reduce the waste of paper, but the solution also reduced the waste of over processing.

The main cause for this type of waste is habit. We get so used to doing things a certain way that we can no longer see any other way to do them.

2.3.5 The waste of equipment downtime

Any time spent waiting because of equipment downtime, ineffectiveness or slowness is waste. This includes complete breakdowns as well as slowdowns due to poor maintenance and planning.

At one company, five customer service representatives had to share the same printer for their computers. After waiting to use the printer, they had to walk to get their printouts. Furthermore, the strain put on the printer by multiple users resulted in frequent breakdowns and a great deal of maintenance. The solution was simple: less

expensive printers at each desk for each representative. The time and money saved far outweighed the initial investment.

2.3.6 The waste of inventory and storage

Excess stock of anything is waste. Even if the stock represents a safety net, it is waste because you are paying for items you are not using. Excess supplies, goods, tools and other items can be defined as excess inventory, and any excess inventory takes up space. Consider, for example, how much you pay for each square meter of office space and how much of that space is occupied by shelves or cabinets for storing excess inventory. Then consider the number of people needed to manage it, the potential impact on safety, and the fact that it can become obsolete if work requirements change.

One major category of this type of waste is files. At most companies, files are stored everywhere. Sometimes companies need to rent space to store files they don't really need. If 95 percent of files that are stored are waste, 95 percent of the space, folders, cabinets and time spent for management and storage is waste. And that is wasted money.

2.3.7 The waste of inspection

To reduce the waste of inspection (and checking), everyone has to play by a new set of rules – in essence a new paradigm. This begins with an understanding that defects are caused by the way the work is performed. If work is performed correctly, inspections are not needed. Generally the inspection process exists only because of a fear of mistakes made during the work process. Inspections reveal defects only after they have occurred. Stated another way, inspections discover waste. The inspection process itself does not add value; in fact it becomes another form of waste. Moreover this new form of waste is often multilayered. Think, for example, of the time and effort expended by the people performing the inspections and the number of

inspection reports that they generate. These reports must be read, responded to or acted upon, and then filed or stored, creating more waste.

In addition inspections (and the reports that follow) sometimes cloud the distinction between errors and defects. It is important to remember that errors and defects are not the same. Errors are the cause and defects are the results. Moreover while all defects are created by errors, not all errors result in defects. Sometimes errors leading to defects are external errors rather than in-house errors, again compounding the waste. Other errors are defects waiting to happen.

A parts manufacturer for the aerospace industry shipped 40 wrong parts to a customer. The defect was the shipping of the wrong parts, but where was the error? An investigation revealed that the error was made by the customer's purchasing agent, who had asked for the wrong part number when ordering. The investigation further revealed that the purchasing agent routinely makes this error and that the blunder in just as routinely caught and corrected by the customer service rep, Kathy. Unfortunately Kathy was sick the day this particular order was placed, and her replacement didn't catch the mistake.

This is a great example case of errors not always resulting in defects but having the potential to do so. It clearly illustrates why errors must be prevented, not just detected.

2.4 How to use 5S

One of the myths in business has been that if you put your "stars" in charge and allow them to come up with good ideas, your problems will be solved. This though is pretty far from accurate. Problems will disappear only when teamwork is in place, real causes are discovered and good ideas are systematically turned into standards that are followed every day. The following example illustrates how these three components function as an integrated whole.

A plastic molding client in Massachusetts was having a personnel problem. Office personnel, mostly women, were repeatedly coming to work late. The general manager assigned his best manager, a Harvard graduate, to the project of solving the problem. The Harvard grad, a “star”, came up with a brilliant plan to measure and track attendance and also created an incentive plan for improvement. Not willing to settle for a single (and fairly pricey) solution, however, the general manager also asked the office personnel to get together and create a “list of improvements” for the office environment.

The office group came up with two solutions that completely solved the problem. The first solution was a good coffee maker that made better coffee (employees were coming in late because they were stopping on their way to work to buy good coffee). The second solution was to renovate the ladies restroom, which was described as “pitiful, disgusting, and unusable.” The office employees agreed that if these improvements were made, they would make every effort to get to work on time.

As the example shows, traditional business “wisdom” is not always the wisest approach to company improvement. The first key to improvement, especially in organization and standardization, is to get a systematic method of improvement. There are seven phases of 5S, and they must be followed in sequence. The process can be compared to building a house. When you build a house you need a strong foundation. IF your foundation isn’t solid, the rest of the house won’t be either. Each building stage supports the next.

In similar vein, 5S must be implemented systematically. If you don’t prepare the project well by getting the management involvement and forming a strong implementation team, the rest of the project won’t unfold well. And if you try to improve without understanding what needs to be improved, you’ll gain very little. The seven phases of 5S are as follows:

1. Prepare the project
2. Perform an office/shop floor scan
3. Sort Through and Sort Out
4. Set Things in Order and Set Limits
5. Shine and Inspect Through Cleaning

6. Standardize and Share Information
7. Sustain the Gains

5S Roadmap

Phase 1: Prepare the project

Step 1. Get management involvement

Step 2. Identify target areas

Step 3. Form an implementation team

Phase 2: Perform an office/shop floor scan

Step 4. Select project measure and collect baseline data

Step 5. Photograph current conditions

Step 6. Apply the scan checklist

Step 7. Post a project storyboard

Phase 3: Sort Through and Sort Out

Step 8. Determine criteria for sort

Step 9. Prepare a holding area

Step 10. Apply sort

Phase 4: Set Things in Order and Set Limits

Step 11. Map the current state

Step 12. Create a Set-In-Order plan

Step 13. Apply Set-In-Order

Phase 5: Shine and Inspect Through Cleaning

Step 14. Determine the criteria for Shine

Step 15. Develop and implement plan for Shine

Phase 6: Standardize Conditions & Share Information

Step 16. Determine and implement standards

Step 17. Implement visual controls

Phase 7: Sustain the Gains

Step 18. Train everyone

Step 19. Make 5S a habit

Step 20. Continue to improve

3 PHASE 1: PREPARE THE PROJECT

3.1 Step 1: Get management involvement

Purpose: To ensure that management will commit time and resources to the project and continue to revitalize the project

Who Does It: The project champion and/or senior management

Time Frame: One week or less; preferably one day

Procedure:

1. Choose a project champion
2. Complete 5S project proposal
3. Get management approval of proposal
4. Complete management commitment checklist
5. Make adjustments where needed

Starting Tips:

1. Ensure that proposals show how the project is linked to the strategic direction of the company (which most likely can be found in writing).
2. Make sure all proposals demonstrate how the project will improve quality of performance in the company and how it will save money.
3. Direct the project champion to make concrete requests.
4. Direct the project champion to “give and take” (play “catchball”).
5. The best way to sell a proposal is to take managers to the physical workplace and show them the real problems.

Purpose of the management involvement

Management's role is to put the 5S system into action in the workplace and to keep it vital. In step 1 management will:

- Assign a project champion
- Clarify the vision and goals for the project
- Begin to plan and manage the project

Many people think it's enough for managers to be "committed." But the idea of commitment is often too vague to be useful. Too often "committed" managers launch a project and then fail to pay attention to it for weeks or months. Somewhere along the line the project dies of neglect.

Who Does It

For a project to be successful, it must have a project champion. Keep in mind, however, that assigning a project champion does not mean the senior management loses sight of the project. In 5S senior managers and the project champion perform Step 1 together.

What senior management should do

To reduce and eliminate waste in the office effectively, everyone must support the program. Ensuring everyone's support begins with top management. Workers will look to see whether top management is behind the project. If top management seems disinterested, workers won't waste their time and energy.

Senior managers should have the ability to communicate effectively with all levels of the organization. Top management has to develop ways to open doors, allowing everyone in the organization to contribute to their full capacity. This is accomplished through six main activities:

1. Choose project champion
2. Articulate the need for the specific project
3. Help identify team members
4. Kick off the project
5. Review all proposals and provide necessary resources for completing the project
6. Audit improvements

What the Project Champions Should Do

The entire management body of an organization can't watch over every project all of the time. However somebody must be in charge and that person is the project champion. The project champion is defined as the person who has the authority and responsibility to allocate resources of the organization to a given project. The champion will launch the team and follow the team's progress.

On occasion project champions are appointed by senior management. More often than not, however, someone within the organization becomes the project champion almost by default by initiating a project and getting senior management involved. It really doesn't matter how a project champion is appointed or selected. What does matter is the adherence to two important principles:

1. that the individual be designated project champion, recognized by management as the leader of the project; and
2. that "catchball" (described below) be used so that there is continuous communication between senior management and the project champion.

Using "Catchball" to Involve Everyone in a Target Area

Many organizations agree that total employee involvement is important, but it is also important to note that total employee involvement is not confined to daily work. It begins in the planning stage with a concept called "catchball."

Catchball is simple. Regardless of who initiates a project, that person articulates the purpose, objectives and ideas and the "throws" them to the other stakeholders. In 5S managers often begin catchball by identifying a project vision, an area for improvement, measures and proposed targets. Then instead of dictating these things to the implementation team, they "throw" them to a core implementation team. This team generates additional needed data, refines the data it was given, and throws the new and improved data back to managers in the form of a team charter that defines the project in more detail. This process continues until management approves the charter. In 5S the catchball accomplishes three things:

1. It gains "buy-in" to ideas generated by the core implementation team.
2. It ensures that everyone who should input does give input.
3. It provides the information and structure for workers to implement improvement.

Management commitment checklist

A management commitment checklist will help you gain management commitment by defining management responsibilities for 5S and gauging the decree of commitment the management has for a specific project. The management checklist covers:

1. Allocation of training resources (allocating time and money for training)
2. Accountability (clarifying who is accountable for what and following up to ensure people are accountable)
3. Incentives (reward and recognition for participation and results)
4. Articulation of a vision (communicating clearly the purpose and results)
5. Goal setting (establishing meaningful operational goals and measures)
6. Establishment of an improvement process
7. Assignment of a reasonable budget to the project
8. Visible support from managers (ensuring optimistic, useful feedback and ideas)
9. Authorization for the champion to enact changes
10. Passion about continuous improvement

3.2 Step 2: Identify Target Area(s)

Purpose: Choose the physical areas for applying 5S

Who does it: The project champion, in conjunction with the appropriate managers

Time frame: One week or less, usually as part of getting management involvement

Procedure:

1. Identify all areas in the entire facility
2. State the intended primary function(s) for each area
3. Determine the priority level for each area for implementation
4. Specify why you selected the priority level for each area
5. Choose target area to launch 5S

Starting tips:

1. If you have already focused on a specific area for another improvement project, use that area as a high priority target for 5S

2. Remember that while the goal is for the whole workplace to operate through 5S, you don't have to apply all targets at once. Early targets should
    - Demonstrate a significant contribution to the "bottom line"
    - Show a clear need for improvement
    - Be used often by many people
    - Be the focus of customer complaints
    - Have a reasonable chance of success

Purpose of Identifying Target Areas

The purpose of step 2 is to target discrete areas for 5S implementation. You cannot implement 5S in all areas at the same time. To do so would stop your workflow and take people away from their jobs for too long. By identifying discrete areas or departments for 5S implementation, and by creating a plan of attack so all areas are eventually transformed, what seems to be a monster of a project will actually be simple.

3.3 Step 3: Form an implementation team

Purpose: Form a cross-functional team for the planning and implementation of 5S

Who Does It: The project champion begins the process and hands it off to the team leader

Time Frame: One week or less

Procedure:

1. The project champion selects a possible team leader and gets management approval
2. The champion and team leader meet to create a proposed team charter and identify team membership
3. The team leader gets team members' agreement to participate and approval from their managers
4. The champion and team leader plan the launch meeting and send out an agenda
5. The launch meeting is held

- At the meeting the champion introduces the project on behalf of the company; the team leader runs the meeting
- Participants finalize a charter and commit to the project
- The team previews the next step and assigns action items

Starter tips:

1. Use catchball to get buy-in of charter from extended team members
2. Select a team leader who can make decisions and commit resources
3. Management commitment is not enough; you also need attendance at meetings and involvement in the projects
4. Make it clear from the beginning that the team's role includes leadership and training as well as implementation

The purpose of this step is to form a cross functional team that will plan and implement 5S. This is the core implementation team, the people who will be responsible for the entire project. They are the planners and doers – the people who make it happen. This team is responsible for the project from Step 3 through Step 19, at which time they create a plan to make 5S part of everyone's job.

4 PHASE 2: PERFORM AN OFFICE/SHOPFLOOR SCAN

4.1 Step 4: Select Project Measures and Get Baseline Data

Purpose: To provide a focus for improvement for organization and standardization and a system of measurements to ensure that you continue to keep that focus

Who Does It: The core implementation team

Time Frame: A total of one month

- One day to choose the measures and create the system
- One month to collect baseline data

- *Note:* Steps 4 through 6 can be addressed concurrently

Procedure:

1. Determine the strategic alignment of the project you've targeted
2. Select how you will measure the project's success
3. Develop a method for measurements
4. Gather and post baseline data

Starter Tips:

1. Choose measures that help eliminate the 7 Deadly Wastes (described in 2.3)
2. Align your project measures with your company's strategic measures
3. Make sure your measures are easy to collect
4. Select measures that relate directly to performance improvement
5. Use baseline data instead of jumping to conclusions
6. Standardize your data collection methods and ensure that everyone is trained in those methods.
7. Always use visual displays of results as part of measurement system

Purpose of Measurement

Nearly everything that is worth doing well can be linked with measures. Think about it. If you want to shoot baskets with basketball, you may not keep score. But if it matters – if you want to win – you keep score. And when high stakes are involved, you should measure far more than wins and losses. The same is true in daily life. Here a typical measurement activity is balancing your checking account. The better you are at measurement, the easier it is to perform and the easier it is to identify problems before they become serious.

One of the best reasons for measuring something is that what gets measured gets done, and what does not get measured does not get done. In this connection, measurement is both a focus and a warning. When you measure something, you focus on it in detail. If you choose the right measuring device, it can provide a warning if something is wrong. If you do not measure at all, you often miss both the focus and the warning. This can be very risky.

With this in mind, one purpose of this step is to help you select the things that you want to improve with the 5S and then choose the measures that will ensure that those things will be improved. The process, however, relies on measuring things correctly. So this step is also aimed at creating an effective measurement system.

4.2 Step 5: Photograph Current Conditions

Purpose: Document the current conditions of the target area so you can show how it changes over time.

Who Does It: A designated member of the core implementation team

Time Frame: Approximately one hour

Note: If you are videotaping a process, it takes as long as the process takes

Note: Steps 4 through 6 can occur at the same time

Procedure:

1. Choose a team member to be the photographer
2. Review directions and helpful hints
3. Gather all equipment and supplies
4. Identify potential photo shots
5. Take and print photographs
6. Label photos (designate location and problems)
7. Make a visual display
8. Plan date for the next photo shoot

Starter Tips:

1. Pick and choose your shots wisely: photographs are powerful, but too many will overwhelm the audience and defeat your purpose
2. Whenever you take future photos to show improvement, take them from the same location and angle as the first
3. Create a photographic story from the "outside in" – begin shooting on the perimeter of the area and then go inside
4. Always get shots *inside* drawers, cabinets, closets and storage areas
5. Keep in mind that the best shots are taken when the area is in operation, not when it is shut down

6. Make your display photos part of a larger visual display that includes baseline data, graphs, charts and a target statement
7. Save time by planning an overview of your photo history. Don't just start taking pictures without a plan because this wastes time.

Purpose of Photographing Current Conditions

One picture is worth a thousand words. By documenting key conditions with photographs and posting those photos, you will demonstrate exactly what the conditions and problems are in your target area.

Since the best photographic shots are taken when the target area is in operation, make the shots real, not staged. Don't clean up before shooting and don't announce the photo shoot ahead of time.

4.3 Step 6: Apply the Workplace Scan Checklist

Purpose: Perform a diagnosis of your workplace conditions. Do this in each target area and score your results. Conduct a second diagnosis at a future date to see if improvements are evident.

Who does it: The core implementation team

Time Frame: Approximately one hour

Procedure:

1. Choose the team member(s) who will be responsible for this activity
2. Apply an office scan checklist of your choosing. You can use something according to the one explained here of make your own that fills the same purpose.
    a. Enter the date of your office scan
    b. For the entire target area, enter a corresponding value next to each line item.
        i. First, determine how many problems exist for each line item
        ii. For an area where five or more problems or conditions exist, as mentioned in the line item, enter a rating level of 0

iii. Where three or four problems or conditions exist, enter rating of 1
iv. Where two problems or conditions exist, enter a rating of 2
v. Where only one problem exists, enter a rating of 3
vi. Where no problems for that line item exist, enter a rating of 4

c. After rating each line item, add all the lines and enter your total score.
   i. There are 25 line items organized into the 5S categories of Sort, Set in Order, Shine Standardize and Sustain
   ii. The highest possible total is 100
d. Decide when you will perform the process again

Purpose of the Workplace Scan Checklist

The workplace scan checklist is a tool that helps you understand, in detail, your 5S problems. However the checklist has two other purposes as well. The example workplace scan checklist is organized into the 5S categories of Sort, Set in Order, Shine Standardize and Sustain. Each of these categories is defined by five line items, or conditions. By rating the target area in this way you will learn a great deal about 5S. The process of applying the workplace scan checklist is almost like a mini-training about 5S. The team can use the checklist as another performance measurement for the project it is working on.

Category	**Line Item**	**Date: 5/3 Score:**	**Date Score:**	**Date Score:**
SORT	1. Unneeded equipment, tools, large items present.	0		
SORT	2. Unneeded small items present	1		
SORT	3. Items present in aisles, stairways, corners etc.	1		

Example of workplace scan Checklist

4.4 Step 7: Post a Project Storyboard

Purpose: To allow anyone who is interested to easily observe a project – where it started, where it has to go and where it is at any given time

Who Does It: The core implementation team

Time Frame: One week or less, *after* you have completed steps 4 through 6

Procedure:

1. Choose the team member(s) who will be responsible for this activity
2. Identify your audience and location
3. Identify where you will post the storyboard
4. Write a target statement for what you want your storyboard to show
5. Develop, create and post the real storyboard

Starter Tips:

1. Remember, one picture is worth a thousand words.
2. Include titles and subtitles: these are crucial.
3. Flow your storyboard from left to right – the way people usually read.
4. Remember the purpose of your storyboard is to communicate, attract and teach. Artistic ideas should serve this purpose.
5. Consider format issues such as spacing, legibility, size etc.
6. Think visually – make the storyboard colourful and communicative
7. Never let a storyboard get out of date.

Purpose of Storyboards

Storyboarding is a visual representation of a story, concept, process or implementation plan. It describes in logical steps all the activities that have been, or need to be, accomplished to reach a goal. And it demonstrates results. In 5S storyboards have three primary objectives:

1. To educate everyone about 5S and the ongoing conditions in the office
2. To keep everyone focused on the important issues for improvement
3. To get buy-in for the 5S project

To accomplish these objectives, 5S storyboards must be living documents. They should always be changing and growing as the project changes.

Task 1: Choosing responsible members

It takes certain organizational ability to manage this task. In addition, it is something that must be done on a regular basis, as new information is available. For that reason, it is recommended that two people be in charge. One person is the manager/planner, the person who gathers the information and ensures it its translated to the storyboard regularly – perhaps every one or two weeks. The second person is the artist/designer, the person who can make information look good visually. If no one on the team can do this, enlist outside support.

Task 2: Identify the audience for and the location of your storyboard

Do not do any planning until you are completely certain who your audience are and where you will post the storyboard. For example, is your audience made up of employees? If so, company jargon can be used and the location can be the lunchroom or worksite. However, if customers are part of your audience, then you should consider using a location, words, phrases and picture that make the information accessible to this "outside" audience.

What you say, how you say it, even the language you use, completely depends on your audience. Many storyboards fail because the wrong pictures or the wrong jokes are used. Others fail because there are too many words or because the wording in inappropriate for the intended audience. The key point to emphasize here is *Know your audience!*

Task 3: Write a target statement describing what your storyboard should illustrate

In this story, you need to tell everyone the outcome. The target statement is that outcome and is crucial element of the storyboard. The purpose of the target statement is to explain exactly what the team should achieve and when it should be achieved, in clear, understandable words.

Because the goal is usually to eliminate waste or increase efficiency, the target statement usually begins with words like eliminate, reduce or increase – words that can be connected to real measurement. A good target statement must

1. Be easy to read
2. State why the target is important

3. State the date of completion
4. State the improvement measurement

An example of a good target statement is

"The quality office will reduce the amount of wasted time for searching and waiting broken inspection tools from 400 hours in September to 200 hours in October. This will allow staff to meet assigned work objectives."

Task 4: Identify which information and illustrations will be included on the storyboard

Keeping in mind that the purpose of the storyboard is to communicate the process and progress of the 5S, the team must brainstorm the various categories of information that should be displayed. Remember to tackle only what you can really commit to. Too many storyboards fail midstream because teams begin optimistically and then find they cannot keep up with the task.

Task 5: Develop, create and post your storyboard

5 PHASE 3: SORT THROUGH AND SORT OUT

5.1 Step 8: Determine the Criteria for Sorting

Purpose: TO provide the guidelines and standards by which everyone will perform the sorting activities

Who Does It: The core implementation team

Time Frame: One day to one week, depending on the size of target area

Procedure:

1. Develop a standard operating procedure for sort
2. Design a sort inspection sheet for the area
3. Design red tags
4. Design an item disposition checklist.

Starter Tips:

1. Use the standard operating procedure to get everyone on the same page and ensure an in-depth Sort procedure.
2. At this stage, keep in mind “When in doubt, move it out.”
3. Perform the Sorting process first, because it is wasteful to organize and clean items that are unneeded.

Purpose of Sort criteria

Applying the Sort function to the workplace means that you will

- Sort through everything in the target area
- Separate the items that are unnecessary or in the wrong place
- Remove those items from the work area

This task is not as easy as it seems. You will immediately need to address a number of questions:

- What is the definition of “necessary?”
- Who gets to decide what to keep and what to get rid of?
- Where should this happen? Is there anything that is “off limits”?
- What should happen to the items that are removed?
- How often should this be done?

The Purpose of the Sort criteria is to answer these questions and to provide guidelines so that everyone is performing this step in the same way. It is also a way to educate everyone about the power of this activity.

When you perform this step, Sort becomes much more that a clean-up activity. You will see that it is a way to reinvent your workplace completely because it provides an opportunity to decide how things “should” be organized rather than how they are currently.

More on Task 3: Create red tags

The color red draws attention so problems are not forgotten. On the tag you should record who tagged an item, where and when it was tagged, and why it doesn’t belong at a given location. Tags may contain additional information, such as the value of the item, a file number, or suggestions for how to dispose of the item. Choose a format for your tags that serves the needs of your environment.

Be careful not to overuse red tags. When you are performing Sort, if you are certain something is garbage or trash (defects, outdated documents etc.) just throw it out. In addition, if you find something from another area and you know where it belongs, take it there.

Red tags and rules are made to save time and make sorting easier, not more difficult. A model of how to perform red tagging may provide some insights. One company's policy was to red tag everything that was removed from a target area and to place these items in a holding area. Once a week, a supervisor would make decisions about the disposition of all items. This was not only duplicating a task, it was turning the holding area into a dumpsite. Moreover, it undermined the 5S team by suggesting the team's sorting activities were somehow inadequate, thus undermining the working environment that 5S attempts to build.

Task 4: Create an item disposition checklist

After you remove items from the target area, you need standard criteria for what to do with them. Disposition checklist will be helpful for the activity. Below is a template that most teams can use as a basis.

Target Area:

Purpose: To decide what to do with red-tagged items

Directions:

1. Decide to which category each red-tagged item belongs
2. Determine which action to take

Category	**Possible action**
Obsolete	-Sell -Hold for depreciation -Give away -Discard
Defective	-Return to supplier -Discard
Trash/Garbage	-Recycle -Discard

Unneeded in this area	-Move to proper location
Used once per day	-Carry with you -Store at point of use
etc.	etc.

5.2 Step 9: Prepare a Holding Area for the Sorted Items

Purpose: To provide the guidelines and standards for everyone performing sorting

Who Does It: The core implementation team

Time Frame: One week

Procedure:

1. Select a holding area for sorted items
2. Determine guidelines for operating the holding area
3. Select a holding area manager
4. Visually control the holding area

Starter Tips

1. Set up a *local* holding area for use by the target area workers.
2. Set up a *central* holding area for use by the entire workplace and for items too large for local holding areas.
3. Mark the location of holding areas clearly.
4. Post the rules and disposition procedures in all holding areas.
5. Assign a designated manager for each holding area.

Purpose of a holding area

Workplace holding areas are areas where unneeded items can be temporarily deposited until they are moved to other locations or disposed of. Each target area should have an adjacent holding area. If the workplace is large enough, consider a central holding area that the entire staff can use, especially for items too large to be kept in local holding areas.

Holding areas enable the Sort phase of the 5S. With holding areas, operational people are more likely to move an item out when the need for the item is in doubt. Without

holding area, the decision is usually to “leave it where it is.” The holding area should be close enough to be convenient so the employees are more inclined to use it. Remember that the items stored in the holding area will be there only temporarily. The important thing is to remove all unnecessary items from the work area, even those things that might become necessary at some time in the future.

Task 2: Create guidelines for operation

You do not want the holding area to become a big junk pile. Some valuable supplies and equipment may land in this area, so you want to ensure that they will be handled conscientiously and efficiently. Guidelines for effective holding area management begin with tracking items that are sorted from the target area. A common practice is for the holding area manager to use a disposition log or unneeded items log to track everything that has come to the holding area.

Task 3: Select a holding area manager

One of the biggest mistakes made by 5S teams is to forget to assign a holding area manager. Someone must be in charge, or the entire sorting activity will deteriorate. This may be a big job at the onset of the project because there might be a lot to sort through. Once the process is in place, monitoring what occurs should take no more that fifteen minutes per week. The responsibilities on the manager are straightforward:

- Manage all incoming items on a regular basis.
- Categorize and log each item.
- Decide what to do with each item and get it done.
- Report to appropriate people, such as the office manager, department manager or purchasing manager.

5.3 Step 10: Start Sorting

Purpose: To remove the unneeded items from the target area

Who Does It: The core implementation team, with help from anyone who works in the target area

Time Frame: Approximately one to two weeks for individual target area depending on size and complexity. (F.ex. File storage may take longer)

Procedure:

1. Prepare red tags, forms and holding areas.
2. Review criteria for Sort.
3. Attach red tags to unnecessary items.
4. Remove unnecessary items to a temporary holding area.
5. Evaluate red-tagged items and decide the outcome.
6. Dispose of items.

Starter Tips:

1. Make it easy for people to red-tag items. Trying to figure out something while trying to do your job is negative motivation!
2. Evaluate everything as suspect, regardless of how large it is or how long it has been there.
3. Keep in mind that drawers are the enemy. Things are always hidden in drawers.
4. Don't underestimate the power of "sort remorse."

Purpose of sorting

Applying the Sort phase to the office means that you will

- Look at every item in the target area
- Separate the items that are unnecessary or in the wrong place
- Remove those items from the work area

Removing unnecessary items includes reducing the number of items to the quantity required at any given time. There are always far too many of certain items in workplaces. (F.ex. pens, and rubber bands in offices)

6 PHASE 4: SET THINGS IN ORDER AND SET LIMITS

6.1 Step 11: Map the Current State of the Target Area

Purpose: To see where everything is located in the target area, to observe how work flows, and to locate bottlenecks

Who Does It: The core implementation team

Time Frame: Approximately one to two hours

Procedure:

1. Identify the area to map.
2. Outline the shape of the target area
3. Draw in the large items (f.ex. furniture, machinery)
4. Draw in smaller items (f.ex. equipment)
5. Draw where people work in this area.
6. Show the flow of walking, transportation, conveyance, etc.
7. Label all significant items (desks, work-tables, machinery, shelves etc.)
8. Show problems and facts with yellow cards.

Starter Tips:

1. Keep in mind that if your target area is small, you may not need a map.
2. Map the target area during work hours, while work is happening, so that you have accurate real-time data.
3. Remember that there is always a balance between too much and too little information. You need a fair amount but not so much that you can't easily read the map.

Purpose of mapping the current state of the target area

The purpose of mapping is to give the team accurate real-time data about the physical set up of the target area and the way that the work flows within that physical

set up. The team will be able to locate bottlenecks and problems by seeing that date on a map. In turn this “seeing” will lead to ideas for improvement. For example, one company saw the excessive amount of walking that having a shared printer created among five office workers in a bookkeeping department. After seeing the problem, the company decided to invest in small desktop printers for each person. In the next step, Step 12, the team will use this map to consider Set-in-Order strategies and creates a plan for improvement. In Step 13, the team will implement that plan.

6.2 Step 12: Develop a Set-in-Order Plan

Purpose: To decide which Set-in-Order strategies will apply to the target area and to create a plan to apply those strategies.
Who Does It: The core implementation team
Time Frame: One day, in conjunction with Step 11
Procedure:

1. Consider possible Set-in-Order strategies.
2. Brainstorm ideas with blue cards.
3. Draw a future state map (for what the target area *should* look like) and create a plan.

Starter Tips:

1. Understand the concept of process/material flow and how it relates to Set-in-Order.
2. If the target area is small enough, go directly to the rapid-fire strategy. An elaborate plan will just waste time.
3. Plan before doing, or you will waste energy.
4. Use a future state map, which avoids trying to implement plans that don’t work. It prevents trying to put the proverbial square peg in a round hole.
5. Ensure that your plan makes it easier to see, get, and return items. Visual controls play an important role.

The purpose of a Set-in-Order plan

The purpose of a Set-in-Order plan is for your team to understand and be ready to apply strategies for Orderliness, which can be defined as “arranging all needed items

so that they are easy to use and making their storage site easily understood by anyone".

The sort phase helps you eliminate unneeded items, while Set in Order helps you deal with the remaining items. Each of these remaining items must be arranged so that it will help the workflow. Each item must also be positioned so that anyone, whether they work in the area or not, can easily see where it belongs.

Orderliness reduces searching waste, walking waste, waste of difficulty in using things and waste due to difficulty in returning things. An orderly environment is also a more pleasant place to work. If everything is where you need it, if your work area is uncluttered, and if you never have to search for things, then work will be much more enjoyable.

6.3 Step 13: Apply the Set-in-Order Process

Purpose: To ensure that all necessary items are in the best location and that it is obvious where that place is

Who Does It: The core implementation team, with help from anyone who works in the target area

Time Frame: Approximately between one to two weeks depending on the size of the target area

Procedure:

1. Review your plan.
2. Select problems or problem areas to improve.
3. Determine the criteria and guidelines from which to operate.
4. Move items to where they belong.
5. Make it obvious where things belong

Starter Tips:

1. Use location indicators as key tools for the Set-in-Order process
2. Know your audience
3. Don't overdo planning. At some point you just have to start doing it!
4. Keep improving and testing new ideas.

5. **Purpose of Applying Set-in-Order**

Applying Set in Order means ensuring that there is a place for everything and that everything is in its proper place. This is where the plan you developed in Step 12 comes to fruition. Setting things in their proper places saves search time, when everyone knows where to find everything or at least know where to ask. It is of course important to maintain the order after this phase, so that after usage items are returned to their place.

7 PHASE 5: SHINE AND INSPECT THROUGH CLEANING

7.1 Step 14: Determine the criteria for Shine

Purpose: To provide the guidelines and standards by which everyone will perform the initial cleaning and inspection activities for Shine.

Who Does It: The core implementation team with the help of everyone who works in the area.

Time Frame: One day or less, depending on the size of the area.

Procedure:

1. Develop a standard operating procedure for Shine.
2. Develop a checklist for Shine.

Starter Tips:

1. Assign a group that usually does not clean and inspect an area to perform this activity together.
2. Focus this step only on *initial* cleaning and inspection. Ongoing cleaning and inspection will be addressed in the fourth S, Standardize (described in Phase 6)
3. Keep in mind that criteria have probably already been set for most of the cleaning activities that the team will perform. Look for these standards before you try to reinvent the wheel.
4. Remember, every workplace is different. So use criteria that are appropriate to your target area.

Purpose of the Shine Criteria

The full meaning of Shine is to:

- Clean everything, inside and out
- Inspect through cleaning
- Eliminate dirt, dust, physical waste and other contamination

Cleaning may seem simple and obvious, and you probably already have a cleaning routing for your workplace. During Shine, however, cleaning is not just a matter of making things look good. It is a way to spot problems early and keep work areas and equipment in top operating condition.

A team that doesn't usually perform cleaning in the target area may perform Shine. For that reason, it is essential that everyone operates from the same principles and uses the same guidelines. Shine criteria provide those guidelines and principles.

Criteria also helps you avoid some problems while performing Shine. It is beneficial to know certain things about the target area before you actually start the Shine and notice later that you did something wrong. Examples include:

1. Is there anyone you should contact about cleaning any specific equipment or machinery? For example, consult the IT department on how to clean computers and maintenance department on how to handle heavy machinery cleaning.
2. Is your timing for cleaning going to interfere with other activities? For example, will customers be on sire during cleaning activities, will cleaning interfere with scheduled meetings or can a machine be shut down for cleaning without disrupting the whole workflow?
3. Are you using the proper chemicals for cleaning? Using an ammonia based cleaner for computer screens for example can be a costly mistake.
4. Are there any safety procedures to watch out?
5. What cleaning is OK for the team to perform, and what should be left to others?

7.2 Step 15: Develop and Implement a plan for Shine

Purpose: To clean the target area and use cleaning as a method for inspection
Who Does It: The core implementation team with the help of the target area workers
Time Frame: One day to one Week, depending on the size of the target area and schedules

Procedure:

1. Determine targets and assignments.
2. Determine cleaning methods.
3. Review criteria for Shine
4. Perform initial cleaning and inspection

Starter Tips:

1. Keep in mind that getting the best Shine is not an accident. Be systematic.
2. Always involve people who work in the target area in cleaning.
3. As you clean, also inspect machinery, tools, equipment, cords, etc.
4. Replace worn-out parts immediately.
5. Use all your senses
    - Look for signs of wear, damage, leaks, dirt and grime.
    - Listen for inconsistent or unusual sounds.
    - Feel areas that you suspect may have excessive wear, abrasions and sharp edges/points.
    - Smell for anything that doesn't belong like oil, chemical leaks, smoke etc.

Purpose of Creating and Implementing a Plan

The purpose of this step is to perform deep cleaning in the target area. To do so, you need a clear plan that will tell you who will do the cleaning, what they will clean, and exactly how the cleaning will be performed.

For initial cleaning, everything should be cleaned and scrubber until it "shines" like new. But this step also means inspection. Check every piece of equipment, tools electrical outlets, drawers etc. to see that everything works correctly. And in the end of this step, you will not only have a cleaner working environment, it will also look, feel and work better. Employees will feel better being there, and customers will be much more impressed with the company as a whole.

8 PHASE 6: STANDARDIZE CONDITIONS AND SHARE INFORMATION

8.1 Step 16: Determine and Implement Standards for the Ideal State

Purpose: To define the ideal state for Sort, Set in Order and Shine, and to bring the target area to that ideal state

Who Does It: The core implementation team with the help of target area workers

Time Frame: Approximately two to four weeks

Procedure:

1. Draw a final area map.
2. Assign 3S responsibilities.
3. Integrate 3S into daily work
4. Implement autonomous maintenance.
5. Implement other standards.

Starter Tips:

1. Create standards for Sort, Set in Order and Shine, so that they can be integrated into daily work.
2. Encourage participation in development of standards, because it is the best method to get adherence to those standards.
3. Keep in mind that standard operating procedures are recipes for success.

Purpose of standards

To implements standards means to decide the best way to perform *each* of the first three Ss *all the time* and to train everyone to perform them according to those standards. There are a number of reasons for creating standards:

- To provide an accurate set of instructions to train workers in the 5S
- To provide workers with 5S procedures that can be incorporated into their daily jobs
- TO allow managers to confirm that workers are performing 5S correctly

- To develop methods that will result in a safe, waste-free, efficient workplace that is enjoyable to work in.

8.2 Step 17: Implement Visual Controls

Purpose: To create a visual language throughout the target area and ensure adherence to all 5S standards

Who Does It: The core implementation team with the help of the target area workers

Time Frame: Approximately one month

Procedure:

1. Identify Control points.
2. Implement visual displays.
3. Make information part of the workplace.

Starter Tips:

1. Always remember your audience, because the first job of this step is to create a visual language that your staff can understand.
2. Keep in mind that one picture is worth a thousand words.
3. Decide the control points you want to adhere to first. You need to know what you want to control before you decide how. Then you can decide the visual control needed.
4. Remember, there are different levels of control. Various visual controls give you different levels of control. You have to decide what level of control you need before you choose the correct or appropriate visual control.
5. Don’t overuse visual controls because this creates waste. Always have a good reason to implement visual control.

Purpose of Visual Controls

Visual controls play an important role throughout the planning and implementation of 5S. However, in this step, visual controls have a very specific function-to ensure the adherence to standards. For this reason, the objective is to create a visual language throughout the area and beyond and then ensure that everyone understands how to meet standards.

9 PHASE 7: SUSTAIN THE GAINS

9.1 Step: 18 Roll-out Training for Everyone

Purpose: To provide all employees with the awareness, attitudes and skills for successful implementation of the 5S system

Who Does It: A designated training team

Time Frame: Ongoing

Procedure:

1. Create a training plan.
2. Implement the training plan.

Starter Tips:

1. Remember that standard operating procedures are the foundation of all training.
2. Emphasize practice in training. *Lectures are boring*.
3. Create a learning environment that is supportive to participants attending and where information is linked to issues they have to deal with in their jobs.
4. Include the "5 Whys" in everyone's training.
5. Provide self-training aids such as videos, books and manuals.

Purpose of Training

The purpose of Step 18 is to create and implement a training roll-out plan for 5S. Training everyone is critical to the implementation of 5S. People will be required to change their behaviour, acquire new habits and learn new skills. You cannot force people to do this. The only way to accomplish it is through teaching and learning. The purpose of training everyone is to provide every employee with the following:

- The awareness of the purpose of the 5S System, its benefits and how it fits into daily work activities
- The philosophy and attitudes that make the 5S system work

- The skills to implement the 5S system

Training may vary from person to person. For example, everyone should be trained in how to use the basic 5S System, but superiors, team leaders and mangers may also be trained in how to facilitate a ream event. Others may be trained in how to manage a holding area.

9.2 Step 19: Make 5S a Habit

Purpose: To develop the self-discipline that will make 5S a habit for everyone

Who Does It: Everyone

Time Frame: This is an ongoing process.

Procedure:

1. Make 5S a part of everyone's regular job.
2. Perform management "walk-arounds"
3. Perform scheduled 5S audits.
4. Maintain ongoing communication.

Starter Tips:

1. Make 5S a habit by beginning with worker awareness and attitude.
2. Encourage practice, which makes 5S a habit.
3. Involve management on regular basis.
4. Be patient. This is an ongoing process.

Purpose of Making 5S a Habit

The purpose of this step is to have your people use the 5S system automatically. If the 5Ss do not become a habit, things will fall apart:

1. Unneeded items will begin to accumulate.
2. Items will be out of place and eventually people will spend more and more time searching for things.
3. The workplace will begin to get dirtier.
4. Equipment will break down more frequently.
5. Jobs will take longer to perform.
6. The workplace will run out of supplies or will overstock.
7. Employees will not feel good about working in the office.

In other words, you will find yourself back in square one. To avoid this scenario, you need self-discipline and commitment to inculcating self-discipline in your employees.

9.3 Step 20: Continue to Improve

Purpose: To implement a process of continuous improvement using the 5S system

Who Does It: Everyone who works in the company, either individually, in ongoing teams or departments, or periodic improvement events

Time Frame: Ongoing

Procedure:

1. Ensure management support
2. Use a systematic method for improvement

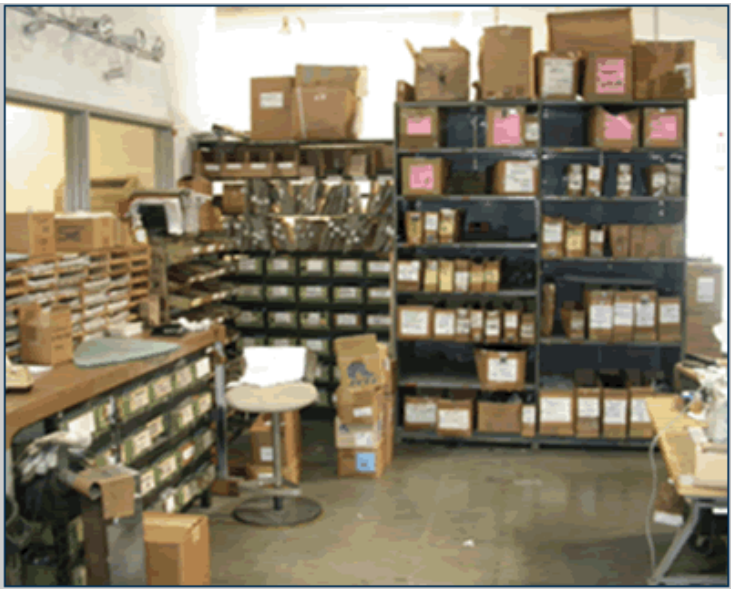
Starter Tips:

1. Recognize that management support and participation is crucial
2. Keep in mind that a systematic, scientific method for improvement will make improvement seem natural, almost easy.
3. Remember, this is a method to use after you have implemented the 5S system. It works as continuous improvement, not initial improvement.
4. Use the method in sequence. If you don't, it won't work.
5. Encourage catchball, which will allow for an environment of total employee involvement.

ADDENDUM – BEFORE AND AFTER PICTUREs

Before photo. As you can see, the area was extremely disorganized. Although many boxes appear to be labeled, most of the boxes contained more than one part making it very difficult for a newer employee to assemble a kit correctly.

The area was very dark due to high piled storage racks which surrounded the area and a lack of proper ilighting. Notice the inoperable track lighting that wass installed on the upper left side of the photo



After photo. This photo depicts the hardware cell after the Evolver™ event. We began by moving the hardware cell to a more desirable location in the assembly department (closer to the point-of-use).

The yellow bins replaced the old boxes. A yellow bin was installed for every component and all of the bins were labeled correctly. The bins were then arranged in an order that allowed the hardware kits to be assembled in a very efficient manner. The blue racks holding the yellow bins were designed and fabricated in-house, adding an extremely nice personal touch to the project.

SOURCES

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Before/After pictures courtesy of:

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