

## **5S IMPLEMENTATION IN APPAREL EDUCATIONAL INSTITUTION**

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### **ABSTRACT:**

This article is mainly focused on the implementation of 5S in educational institutions, a Japanese Technique in order to manage the waste and improve the cleanness of the Institution. 5S is an approach to make the workplace a better organization with an efficient and managed production. It is not only used to identify and eliminate the waste but also to work with improved methods where many teams get involved in the process. In this study, we concentrated the enactment in the Garment construction Laboratory. Firstly, the tools and equipment in the laboratory were identified and sorted according to their requirement. Later, they were arranged in a systematic order and standard operating procedure for each process was created considering safety and rules and regulations of the institution. Awareness was created among the members of the institution.

### **1. Introduction:**

Today, every organizations has implemented the 5s management techniques for enhance productivity and competitiveness. 5s is mainly concerned with creating a well-organized and clean working environment in the whole working place. In educational sector the implementation of 5s will improve the work place, enhance better environment and elimination of accidents in workplace. This report will help to know and identify the wastes and also would provide the methods for removing and controlling the waste in the institution which will help in more systematic work procedures in the college. Students will easily adopt the industry management techniques and systems through the best practice of 5s in the educational institution. This project explains the importance of a well-organized work place in an educational institute and benefits of that is implemented. This project helps to creates clean workplace and systematic work process in the institution.

### **2. 5S policy**

5s is the technique to create systematic culture of organization. It is the basic foundation for the lean manufacturing. 5s is a management technique from japan. This technique focuses on establishing a quality environment in the organization, creating standard operating procedure, continuous improvement of the organization.

## 5s is the acronym of five Japanese words

- Seiri - Sort
- Seiton - Set in Order
- Seiso - Shine
- Seiketsu - Standardize
- Shitsuke - Sustain

**1S: Sort:** Clearly distinguish needed items from unneeded and eliminate.

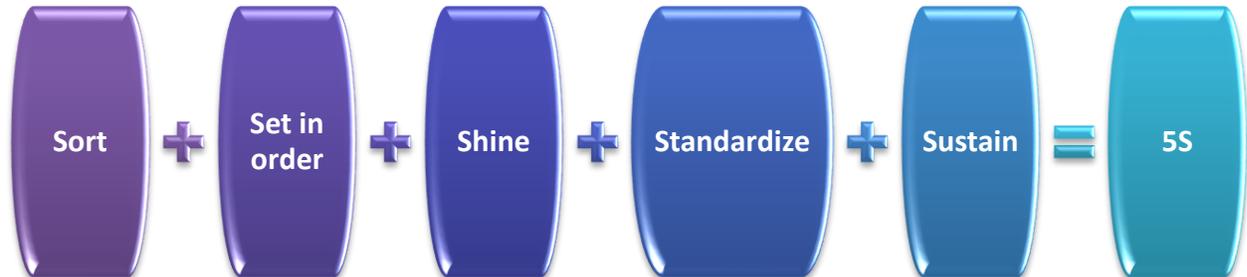
**2S: Set in order:** Keep needed items in the correct place to allow for easy and immediate retrieval.

**3S: Shine:** Keep the workplace neat and clean.

**4S: Standardize:** The method by which Sort, Set in order, Shine are made habitual.

**5S: Sustain:** Maintain established procedures.

**Additional S: Safety** - Strive to eliminate the accident in workplace.



**Fig. no. 1- Process chart of 5S**

Implementation of 5s in educational institute is making the professional with the best practice of 5s. It is not only for identifying the waste and removing, it is a process of creating quality environment and improving the safety of the organization also improving the productivity in the industries and educational institute. It will help to the student in future; they can easily adopt the 5s system in the industries after completing the studies.

### **3. Benefits of 5s implementation in educational institutes:**

1. Reduce the wastage level such as
  - Waiting for materials, machines, or instruction
  - Unwanted transportation or movement

- Excessive inventory
  - Inefficient machine processing and/or operation
  - Producing defects
  - Inadequate housekeeping
  - Miscommunication or inadequate instruction
  - Time
2. Effective utilization of resources
  3. Identification of materials makes easy accessible of workplace.
  4. Clean working environment
  5. Health and safety is ensured
  6. Machine maintenance easy
  7. Organized and disciplined way of work by sop (standard operating procedure)
  8. Uniform terminology created
  9. Quick retrieval
  10. Accidents & mistakes minimized
  11. Increases space
  12. Visual management system

#### **4. Step by step implementation of 5S in educational institution:**

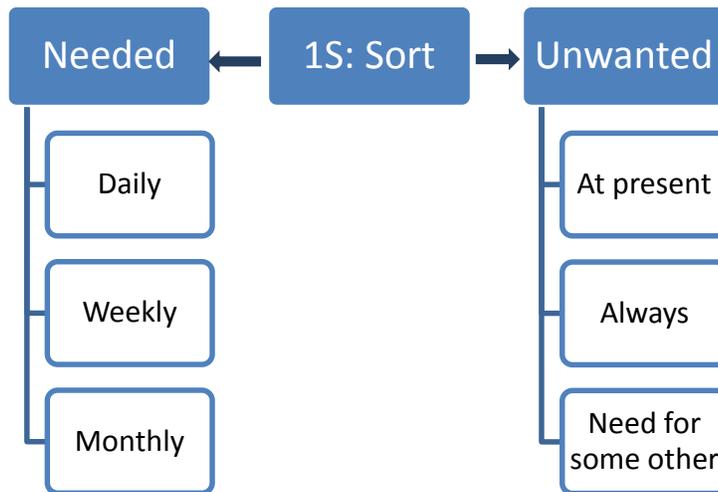
##### **1S-Sort:**

Sort is the process of clearly distinguish needed items from unwanted and eliminate the unwanted items. By using the sorting form the necessary items are identified (table: 1). Then it eliminate the waste materials from the workplace. It helps to maintain the clean workplace and improve the efficiency of the searching things also the time will be reduced.



**Fig No: 2**

After listing the Materials ask the following questions



**Fig No: 3**

Step: 1 - List out the things present in the workplace.

Step: 2 - Is it needed or unwanted.

Step: 3 - If it is needed means, how much needed?

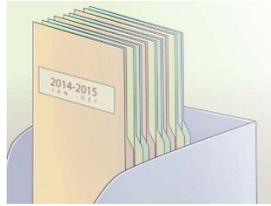
If it is needed means, when it is needed?

Step: 4 - If it is unwanted means, Move the material to red tag area

**Table No 1 - 1S in Stationary**

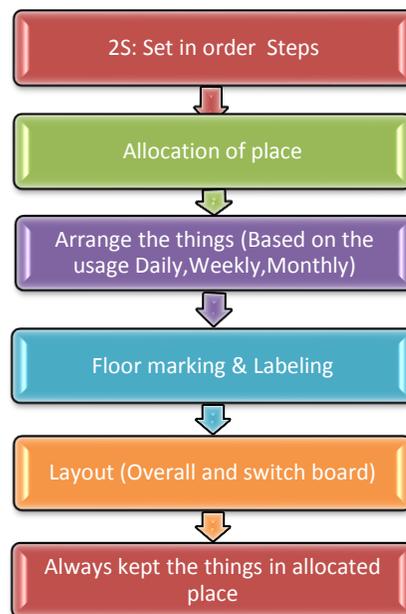
| Serial No. | Item           | Needed | How much needed | When needed |
|------------|----------------|--------|-----------------|-------------|
| 1          | Pen            | Yes    | 1               | Daily       |
| 2          | Pencil         | Yes    | 1               | Daily       |
| 3          | Stamp pad      | Yes    | 1               | Weekly      |
| 4          | A4 Paper       | Yes    | Maximum 10      | Daily       |
| 5          | Petrol         | No     | -               | -           |
| 6          | Eraser         | Yes    | 1               | Daily       |
| 7          | Snacks         | No     | -               | -           |
| 8          | Scale          | Yes    | 1               | Daily       |
| 9          | Stapler        | Yes    | 1               | Daily       |
| 10         | Mobile charger | No     | -               | -           |

## 2S: Set in order:



**Fig No: 4**

It is very important to make the visualization of workplace. Here the shortlisted needed items should be placed in appropriate place. Floor marking helps to identify the places of storage of each material and transport ways or pathway. Labeling helps to identify the material easily.



**Fig No: 5**

Step: 1- Shortlist the needed things and allocate the place for the things

Step: 2 - Needed things are divided into the following category

- Daily usage, Weekly Usage, Monthly Usage

Step: 3 - Floor marking & Mark the location for placing the things, and give labeling to the same

Step: 4 - Prepare overall layout for the workplace to find the location.

Prepare the switch board layout for easy identification of switch.

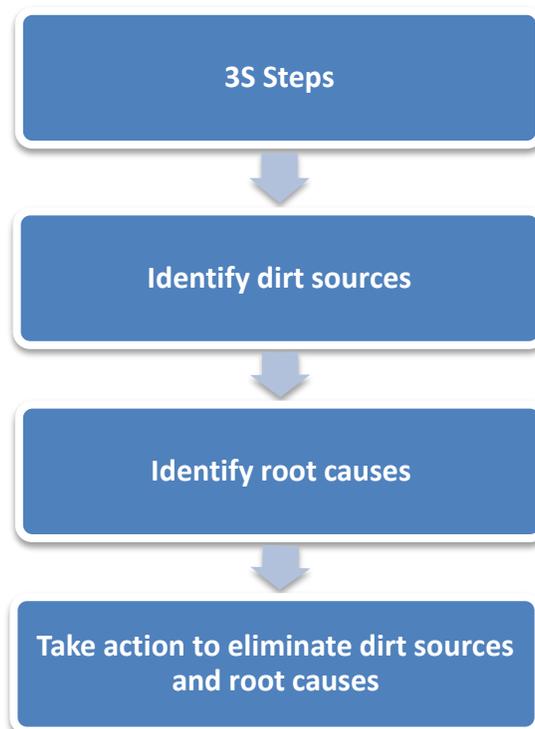
Step: 4 - Always kept the things in that allocated place

### 3S: Shine



**Fig No: 6**

Daily cleaning of workplace permits to identify and eliminates dirt and dust sources from the workplace. It maintains the workplace clean and neat.



**Fig No: 7**

Step: 1 - First of all find the dirt sources and identify causes for the same.

Step: 2 - Then make schedule for cleaning the workplace. According to the schedule make the cleaning checklist. Make Sign after the cleaning process.

**Table no. 2- Cleaning Schedule**

| Cleaning                  | Durations       | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |  |
|---------------------------|-----------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--|
| Floor Cleaning            | Three days once |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |
| Table, Rack Cleaning      | Weekly once     |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |
| Dustbin Cleaning          | Three days once |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |
| Water Changing            | Daily           |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |
| Fans and Lights Cleaning  | Monthly Once    |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |
| Doors and Window Cleaning | Monthly Once    |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |
| Computer Cleaning         | Monthly Once    |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |
| Wall Cleaning             | Semester Once   |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |

**4S: Standardize**



**Fig No: 8**

Implemented Sort, Set in order, Shine steps must be made habitual. Form the standard operating procedure for each and every process. Standardization helps to effective communication and easy to understand. SOP (Standard operating procedure) should not violate the standard rules of organization.



**Fig No: 9**

Step: 1 - Standardize every process in the institute

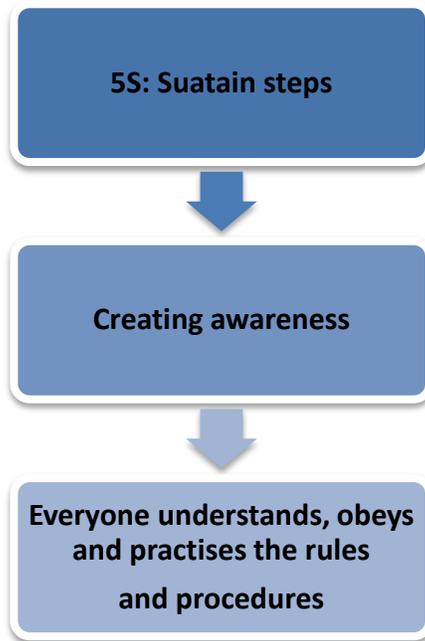
Step: 2 - Giving responsibility to every one

**5S: Sustain**



**Fig No: 10**

Maintain the established procedures in the organization. Create awareness to new comers of the educational institute. They should obey the system of 5S. It helps to continuous improvement of the institute. Once a month must make a 5S inspection of workplace and everyone should know the importance of 5S concept. It helps to the sustainability of 5S in the educational institute.



**Fig No: 11**

Step: 1 - Follow and maintain the established standards

Step: 2 - Monthly once make auditing in the workplace.

**9. During 5S Implementation:**



10. Before 5S and after 5S Photos

Before 5S



After 5S

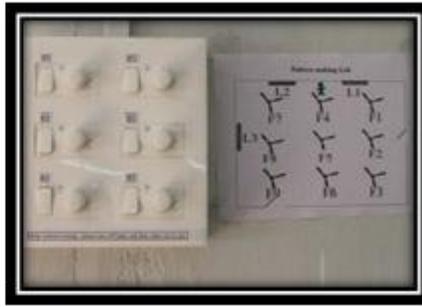


**Before 5S**



**After 5S**







## 11. Conclusion

Implementation of 5S in college and educational institute, the workplace becomes organized and proper place for education. Implementation of 5S helps to make the work of each and every individual easier. Students discipline improved with the help of 5S practice. In future student can easily adopt the industry rules and regulation through the best practice of 5S. This helps to make every work in smart way. Most of the accident and mistake reduced. 5S implementation in the college will improve its effectiveness.

### References:

1. J. Michalska Cwiek, "The quality management system in education, implementation and certification" , Dec-2009, Volume 3 Issue 2, JAMME
2. Nik Zainiah Nik Abd Rahman, "Step by step implementation of 5S" [www.npc.org.my](http://www.npc.org.my)
3. S.K. Ho, TQM N INTEGRATED Approaching- Implementing Total Quality through Japanese 5S and ISO 9000, Kogan page, London. 1996

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