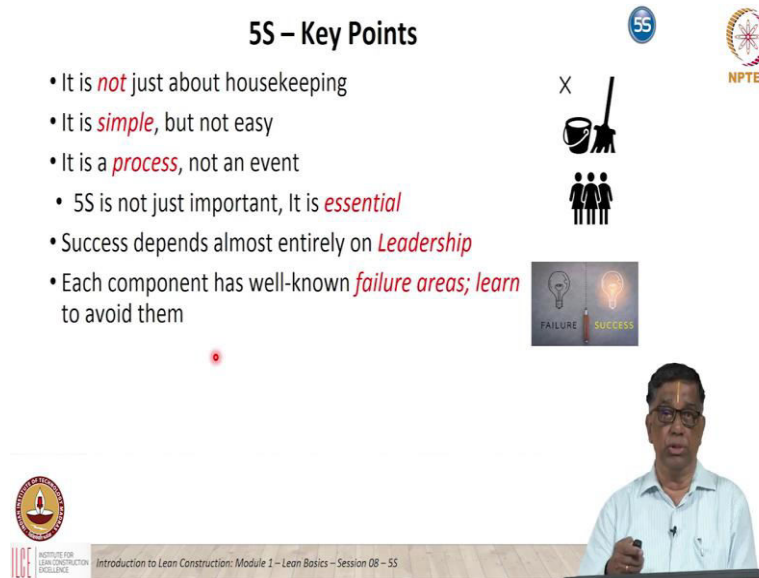


Introduction to Lean Construction
Professor N Raghavan
Department Civil Engineering
Indian Institute of Technology, Madras
5S: Key Points, Benefits, Signs of a 5S Site

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5S – Key Points

- It is *not* just about housekeeping
- It is *simple*, but not easy
- It is a *process*, not an event
- 5S is not just important, It is *essential*
- Success depends almost entirely on *Leadership*
- Each component has well-known *failure areas*; learn to avoid them



So, the last few minutes, we had seen about the 5S points, 5S's. What they mean? How exactly to implement them? What are the advantages and so on? So, just to recapitulate the key points. 5S is not just about housekeeping, it is something much, much more, it is a visual management exercise. It is apparently appears to be very simple, but not that easy to implement.

So, we need to be very careful, taking lot of precautions, and is actually a big process, not just a onetime event, it is a continuing long term process. And many people think, it is one of the important items, but it goes much beyond that, it is a very essential item, we need to remember that.

And the success depends entirely upon the leadership from the top management from the site project manager, unless the commitment from the top management and the full support are there, from these agencies, 5S may not succeed. Because, people keep a watch whether it is something which is valued by the top management as a key performance indicator or not, if it is not, then they also tend to slacken.

So, the top management has to clearly indicates a number of signals that yes, they care about 5S, it has to be implemented as much as possible. Then the people on the front lines and all

the other stakeholders, for example, your vendors, subcontractors, they all come on board. And ultimately, even the clients tend to respect the party, which practices 5S quite well, and anybody coming into the site casually, also will recognize a 5S site and appreciate the same.

And like any other change management process, a number of these can go wrong. So, we need to be aware of the potential failure points and take precautions to avoid them, that is very, very important.

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5S – Benefits

- Improved **Productivity** (less clutter, better access, ease of finding things), **Quality** (spot errors quickly), **Safety** (better access, better visibility) and better set-up-time (or work start time)
- Creation of **Space**
- Reduced Lead **Times**, cycle times, shift change time, increased machine uptime
- Improved **Morale**, teamwork, and continuous improvement
- Better Brand Image, standing in industry
- Less Wastage of **Time & Materials**
- 5S may not save millions of Rs., but when applied consistently, will surely **save time and material & cut waste**

The slide includes logos for 5S, NPTEL, and IIT Bombay. It also features a presenter in a white shirt and glasses, and a small icon of a pair of scissors.

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Introduction to Lean Construction: Module 1 – Lean Basics – Session 08 – 5S

Now, we all know the benefits of 5S, but just to recapitulate, it improves the productivity considerably, not only because of less clutter, and better access, but also, the ease of finding things. And when you move around a 5S site, you also get tend to get excited, that you are working in a very clean, well laid out, well organized environment, and that tends to bring out the best in you.

So, both the staff and the labor, they find, that they are able to give out something much more when they are working in a 5S site. The productivity improves, and also the quality because, you can spot the errors quickly, when you shine things, when you are keeping them in the right place is much easier to find out something which has gone wrong.

So, you also tend to have better quality and upper safety goes without saying, because you have better access, better visibility, well laid out places and the morale itself is quite high. And I have seen that wherever you have good morale, the quality and safety are also consequently better. Either you have, you get a spare a sense of space, larger space than what

you are used to, when everything is properly laid out, and all the unwanted materials are taken out of the site and so on.

And all the timelines the lead times, cycle times, shift change time, the equipment setting up time, setting up time and all these actually are improved. And consequently, we look at the equipment, if you clock the equipment the uptime of the equipment also tends to be much more than what you would have got otherwise.

Like I mentioned earlier, there is a considerably perceptible improvement in morale, teamwork, and that spurs on continuous improvement in a big way, to it also goes like clockwork. And actually, the most important thing for a large company is a better brand image they get by having a 5S site, but you go to a 5S site, your good 5S site, it looks like you come to an international project and look so well, looks like very well run, well organized and so on.

So, the company is standing in the industry and brand image, they also go much, much higher. And all these savings are actually resulting in less wastage of time and materials. So, consequently the top line, bottom line, both tend to get better.

So, people may tend to calculate how much money I have saved by using 5S, it may not be millions of rupees, but definitely there is considerable savings in time and cost and the wastage is cut down substantially.

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Some Signs of a 5S Site

- Gives a very good first impression - "the first impression is often the right"
- Profusely located *Sign boards*, Directions, Status displays
- *Segregated areas* – for general access, restricted access work area, waste disposal
- Proper walkways for pedestrians and separate roads for vehicles
- Clean and tidy areas and work site
- Stores, Material yards and Equipment yards with "*a place for everything and everything in its place*"
- No scrap/ waste material lying around anywhere.

Source: <https://leanconstructionblog.com/Keys-and-Tips-to-Implement-the-5S-Methodology.html>



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I talked about, when you walk into a site, you get the clear image, you get the clear signal that you have come to a 5S site. Of course, the first thing you do when you start 5S is to put up a big board, this is a 5S site. So, that not only informs the visitors, but that also gives an incentive to the people working in the site, yes, you have an image there of yourself and you have to live up to it, you have to keep up to it.

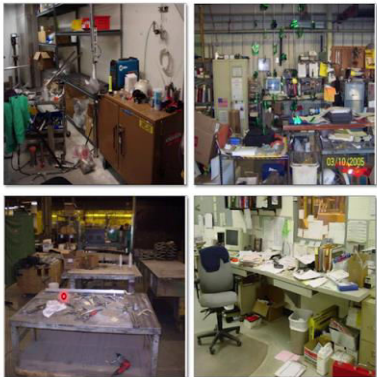
So, people automatically tend to get spurred on. If you have a big signboard, which says this is a 5S site. And then you get a number of signboards, easier to find places, things, and well laid out roads, properly marked up, well segregated between vehicle traffic and pedestrian traffic and so on, where people can have easy access, like work areas, and where one should not go whether at storages.

So, all these are well properly laid out. And even the rest areas, and for example, the retirement room for the labor for eating lunch, and all these are well laid out, very clean, and so on. At the stores, material yards, and the equipment yards, they are all very well laid out.



And we have that saying “a place for everything, and everything in the place”. So, you go to the stores, or you go to the yard, and if they are well laid out, there are proper signs, there are proper tags and so on, then, you really come to a 5S site. And of course, you will not find any materials as scrap laying around all over the place, that is just not done in a 5S site.


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UNDESIRABLE!! – BEFORE 5S



<https://leanmanufacturingtools.org/5s/>




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DESIRABLE!! – AFTER 5S!

5S



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BEFORE AND AFTER 5S

5S



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So, that I can show you the number of pictures, or what is undesirable before 5S, what it looks like, and what it was like after 5S, there is a discernible, perceptible, very clear apparent difference between a non 5S environment and a 5S environment, that I can show you number of pictures before and after 5S. But the best thing is, you demonstrate in your own site, setup in your own way and see the difference, which you get after doing 5S.

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Supplementary Module

Link (to read and contribute)
<https://tinyurl.com/yeureghs>



Topics to be Covered Slide



37

This slide features a central graphic with a stack of books icon. It includes a QR code, a link to a supplementary module, and various icons representing technology and learning. The NPTEL logo is in the top right corner, and a speaker icon is in the bottom left. A small video inset shows a man speaking.



BEFORE AND AFTER 5S



Introduction to Lean Construction: Module 1 – Lean Basics – Session 08 – 5S

This slide is titled 'BEFORE AND AFTER 5S'. It contains four images: two showing a supply room before and after 5S implementation, and two showing a welder's workstation before and after 5S. The 'before' images are cluttered, while the 'after' images are organized. Text overlays on the welder images read 'What welder should look like' and 'What welder should not look like'. The NPTEL logo is in the top right, and a speaker icon is in the bottom left. A small video inset shows a man speaking.

So, we have seen, we had a very good coverage of 5S, from the basics. And we also saw what are the key parameters, what are the key indicators of 5S site, how to start doing 5S, what are the advantages, what are the key, all the pointers, we had seen that. So, the next session, we will see really how to get about set about doing 5S and also some case studies.

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Session 08 – 5S - Summary



Topics Covered

- [S08.01](#): Basics of 5S, Explanations and 5S Steps
- [S08.02](#): “5S” in Detail, 5S: Key Points, Benefits, Signs of a 5S Site
- [Supplementary Module](#)



So, we have finished session 8, the 5S part. And to summarize, in the first session 8.01, we looked at the basics of 5S, we had explanations for each of the 5Ss and then we also saw what are the various steps required to implement 5S in project sites. Then second session, we looked at the 5S, the elements in more detail. The key benefits and the key points.

And then when you walk into a 5S site, what will be the main signs, by which you can know that that is a 5S site. They are very important. And then we also have a supplementary module from which you can learn more things about 5S. Do practice 5S and reap all the benefits, all the best.