

33. Training of Shitsuke

This is the final chapter of this 5S column and the most emotional and bothering matter. In description of today, I would like to tell you following 2 things.

- (1) In any severe business environment, it is possible to share the senses of value & ethics with the people of gemba.

- (2) Any excellent systems can't be introduced, implemented or maintained with just itself.

The meaning of Shitsuke

Firstly the meaning of Shitsuke is to educate and motivate to keep the rule & discipline, to make to be habit to keep and cultivate as the corporate culture & atmosphere by the superior to junior class.

Let's look the etymology.

The etymology of Shitsuke comes from the Buddhism and the means are the teaching of the norms of act, lifestyle habit and skill of life. And this Buddhism term was used in the manners of Samurai combined with the Confucianism and became to current one kanji letter constructed in 2 parts which the left half means "body" and the right half means "beauty". And the meaning is to teach the law of etiquette courtesy as a Samurai.

Then the letter and word are used in 5S. But when started this 5S concept in TOYOTA, as I wrote, it was just 4S and Shitsuke was added after 1973 (I don't know by whom, but not in Toyota). "Shitsuke" it is to educate and motivate not only the 4S, and also the rules & manners of the production & corporate activity. Therefore the objectives of teaching include the manners of corporate life which are for instance Morning greetings, Grooming & appearance in working clothes, Keep of safety rules, Keep time, Washing hands, Keep working standards and Keep business rule of the company which are very important to maintain and improve 4S indirectly by the superior to the junior class with love.

The actual act of Shitsuke

The act of Shitsuke is to scold with love and not getting angry.

Can you love?

When I participated the meeting of a client company of my student consultant in Dunkirk during my business trip, there was a question from the managers how to introduce the mind of kaizen and activity. Then I made the question to them.

Can you love your job, working gemba and your people?

Can you let them love their job, working place and their products?

And if you can't both, it is neither possible to introduce Kaizen nor bring up the mind.

Now why "Kaizen" in the column of Shitsuke? Because, the process of 5S and Kaizen are same. Therefore I use the training of 5S for the education of leaders and the training of kaizen. 5S is one of good tool of cultivating kaizen mind and also the condition if you can practice it correctly. (Of course 5S is one of necessary condition, but not the sufficient condition for kaizen, TPM, TPS ---.)

Please imagine if your people don't love his or her products, working place, can they feel the problem occurred in their process as problem or even though he or she finds the problem, does he show his willingness to improve it autonomously?

And even though the management encourages the teamwork, if he doesn't love his coworkers, is it possible to hope the good teamwork? The answers of any of them are "No".

For getting your good understanding let us think the Shitsuke from the standing position of workers, supervisor or foreman and managers. And after the "foreman" I write more detail of "managers" relating to above conversation.

Worker

The workers are the position of to be educated and motivated. A company is constituted of various people who are from 16 to 60 years old and are men and women and have various senses of value and ethics. And it is very difficult to share the sense of value & ethics with them, but is essential to cultivate the concept of "Whole People's Participation" which is the base of Kaizen mind, Quality mind, and also TPS, TPM, TQM and 5S.

Is it possible to share the senses of value and ethics with them?

The next is not the story of 5S directory, but shows the possibility of education & motivation (Shitsuke) and sharing the sense of value & ethics with people in gemba.

When I was in Mexico, firstly I felt the difficulties of the cultivation of the concept of "Whole People's Participation", because this factory also had the problems of very high turnover ratio which was more than 15% per month and after the payment of bonus of Christmas the ratio reached 25% in the month and had the serious quality problems including the customer's claims which were more than 3 in a month. The factory had 3,000 workers and had more than 400 newcomers per month. They leave the company in very simple reason which for instance just a little better breakfast or lunch offered by the company. And I had the misgivings whether it is impossible to share the concept. However there was a possibility. When I joined, this factory was in the activity of "Go

back to the Basic” which is the meaning of going back to the basic of factory management.

And I began the effort of QRQC (Quick Response Quality Control) activity. And now I introduce one of activity in QRQC. The activity was called “Actividad de Grafica Q (Q-Chart activity) which is the Small group activity like as small scale QC circle by the workers. And I succeeded to share the quality mind with through the activity and also as convinced the possibility of sharing the sense of value & ethics. (See below photo)



Q-Chart Activity (Actividad de Grafica Q)
 Photo left: Group members of the assembly line (in front of the information board of the line).
 Photo below: Q-Chart of the group.
 Q of the Q-Chart is quality. In Spanish, Quality is Calidad, but Q is used as the symbol of quality.

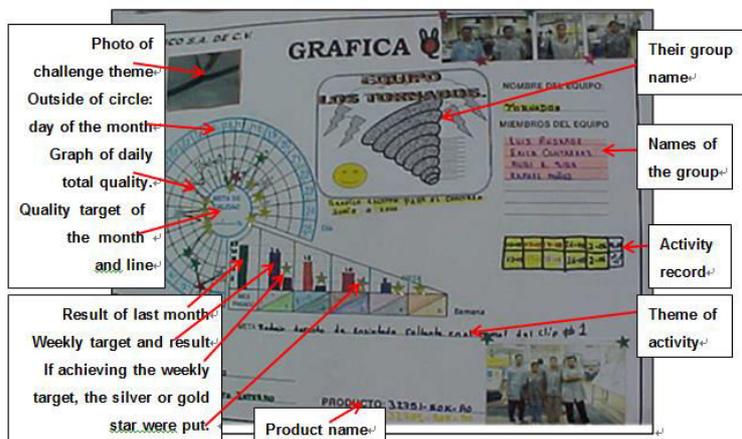
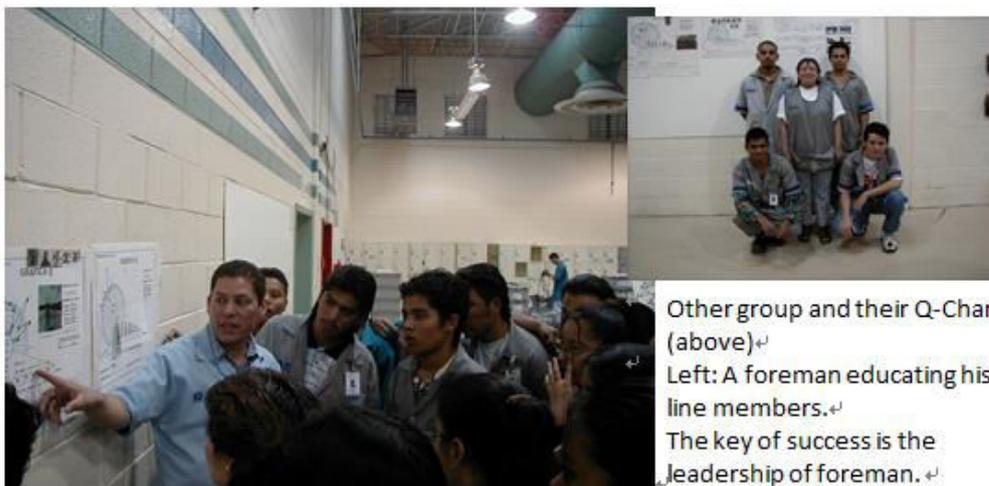


Photo of challenge theme
 Outside of circle: day of the month
 Graph of daily total quality
 Quality target of the month and line

Result of last month
 Weekly target and result
 If achieving the weekly target, the silver or gold star were put.

Product name

Their group name
 Names of the group
 Activity record
 Theme of activity



Other group and their Q-Chart (above)
 Left: A foreman educating his line members.
 The key of success is the leadership of foreman.

Now just a little I explain the characteristic of the Q-Chart activity below.

- Small scale and simple QC circle.
- The term is just one month (QC circle of my style is 3 to 4 months)
- Number of members is same to QC-circle and 4 to 5 per group (rotation system).

- Weekly meeting is same to QC-circle and 20 to 30 minutes.
- Target is just one simple defect improvement and to reduce it to 1/10 comparing to the last month. (Of course should be achievable target)
- Photo: Use photos very much (for getting their interest).
- Q-Chart & Kaizen Improvement chart: Decoration of the chart (for getting their interest).
- Competition in 3 prizes which are prizes of Achievement, Good teamwork and Beautiful chart. (Celebration with cake & coke in the lunch)

The most important point is to give the enjoyment of the activity to the people.

When starting this activity in the factory, again I had a concern whether they participate and have their interest as was expected.

The concern was a needles anxiety and they participated in it with joy, because they could leave their line job a little while. But after a while I could recognize another one of reason and their change which they showed their interest to think and appeal. They wanted the occasion of think and appeal. They didn't pay attention to the quality graph and claim charts which are maintained by the quality assurance department, but to their Q-Chart which was decorated and maintained by themselves with the help of the leader. In the production when was announced a defect occurred and marked in the Pin-Board of the line, all line members showed their disappointment. And the members of the Q-Chart activity showed the expression of mind at ease, if the defect wasn't their target. It was very clear that they began to have the concern to the quality in their product and in their job. They began to have their interest to their quality graph (Q-Chart). After 2 years I could have every confidence that it is possible to share the quality mind and "Whole People's Participation to Quality" and share the senses of value & ethics with them (during their staying in the factory).

Now 5S

When I joined this company (as I wrote above) this company was in the activity of "Go Back to the Basic". And 5S activity also had been started.

But the activity wasn't the 5S, but just beautification activity with using the special cleaning workers. And the initial data of 5S check list recorded the bad score of 23%. About one year later, gradually the job of 5S was transferred to the workers of gemba. Of course many troubles were happened.

One of trouble unforgettable was the discussion with the union: when began to transfer the 5S job to line worker, the special cleaning workers claimed to the union. And after the discussion, they also were incorporated in to the line work.

Another one of unforgettable happening was the misunderstanding of line workers. For maintaining 5S, the Seiso job in 10 minutes before the end of the shift was required to

the workers. But the line workers didn't practice sufficiently, and lined for the Time Card. This trouble also was resolved in the effort of the foremen. And 2 years later the score of 5S was improved to 72% and the customer's claim was reduced to one claim per 4 months (the best record was 9 months no claim).

The sharing quality mind with people in gemba

I succeeded to involve the people of gemba and to share the quality mind, but never think that it was succeeded by just the activity of QRQC and without the back ground of the activity of "Go Back to the Basic".

That is to say, any excellent system or method (TPM, TPS, 5S or whatever) can't be implemented or maintained with just itself, and requires the basic condition.

Educate & motivate workers

In my experience I can say that the basic condition of factory is essential and the following conditions in gemba to educate & motivate.

-Annual policy and announcement: Directly appeal to people, word in notice board, newsletter.

-5S & Clean gemba: If dirty, the dirty calls dirty. Even using cleaning operator, keep clean.

(Chicken first or egg first?) Anyway for Shitsuke, 3S is essential.

-Share the information: Notice (Bulletin) board.

-Graph & Chart: Total & each line of Efficiency, Quality, Attendance ratio, Safety, Production, Machine performance & maintenance and other KPI.

-Special month activity: Quality, Safety, Kaizen.

-Target based on the annual policy: In the graphs.

-Slogan: Quality, Safety and others with poster & banner.

-Education & training and Evaluation of skill.

In the factory many graphs & charts, information which devised to be easy to get the understanding of workers of gemba were presented and well maintained by supervisors and foremen. But most of the people didn't show their interest in those.

Now are those useful?

Yes, are useful and essential. These efforts to present the information are essential to share the corporate mind, senses of value & ethics with the people of gemba. For sharing the minds or maintaining any systems, the atmosphere and corporate tradition which we call corporate culture is necessary. And above information and efforts are the atmospheres essential of a company. I don't say that you must do all of above, but please understand that Shitsuke is not just the teaching of 5S, but let them harmonize the atmosphere and the corporate culture. And it is not possible to teach 5S with just 5S

education, and is possible in the atmosphere and is possible to rear the good corporate culture.

Before finishing this description, let me add one thing.

Shitsuke in 5S is education & motivation and is to rear the 5S mind which not bring in the unnecessary articles, put or return in the designated location and Seiso and inform or take action to the problems occurred autonomously and relates to share the senses of value & ethics. And I and this company succeeded to share such mind with the people in gemba but couldn't succeed the improvement of the problem of turnover. Seemingly the sharing of mind and the "sense of belonging or loyalties" are not related in the condition of employment environment of abundant needs.

In Japan the turnover ratio is low (because of the low Ratio of job offers to job seekers.); nevertheless most of the workers in the production gemba don't have the sense of belonging or loyalties to the company, even though the management encourages them to have the mind of honor and love to their job and products, without the case of job workers of traditional or very high technique.

Next I write the Shitsuke from the position of supervisor and foreman.

Supervisor, foreman or line leader are the key person of Shitsuke. (The role and activity and education to them)

34. Training of Shitsuke (Supervisor & foreman)

Last week I wrote that Shitsuke is not only just teaching the meaning, importance and the act of 5S, but also to educate and motivate to keep the rule & discipline, to make to be habit for keeping and cultivating as the corporate culture & atmosphere by the superior to junior class. Also I wrote the possibility of Shitsuke from the position of gemba worker in my experience which as the result, I couldn't let them love their gemba, job and products, but could share the mind of the senses of value & ethics and the concept of "Whole People's Participation".

When I was writing this description I got the mail which pointed the case of Chrysler. Do you remember that I wrote the case of kaizen in Chrysler (in the number 20.2 Training in gemba. See photo below again.)?



Chrysler could share the sense of value with the workers. ↵
 As the workers, the job opportunity is important, but (I think) they don't love their job or gemba. If there are abundant job opportunities, they will choose better condition and move. ↵

In this description I wrote the success of Chrysler to share the kaizen mind with the gemba workers. Also I wrote the case of Spain Nissan which the workers accepted the reduction of the salary. Both of these companies could share the sense of value with the employees. What is the difference between the case of the Mexican factory and Chrysler and Spain Nissan? As you understand the Mexican case is in the situation of abundant job opportunity. But Chrysler and Spain Nissan could share the sense of value and "Whole People's Participation" via the fateful crisis (as the workers it was the crisis of job opportunity.). I don't know that do the gemba workers of Chrysler and Spain Nissan love their gemba, products and job? I guess that they do not love those, but think to be important for maintaining the job opportunity.

Today I write the Shitsuke from the position of foreman.

Before going to this, I would respond to another question why I write this column in this SNS.

I write this column in spare moments from my main business as one part of my volunteer works. Why do I write this?

5S is good concept and one of necessary condition for any type of company. But I saw many cases of misunderstanding in the world. And because of the misunderstandings, unfortunately 5S doesn't penetrate in the world.

The worrisome misunderstandings are (1) 5S is KATAZUKE (As already you know, Katazuke is one of the process of 5S activity), (2) 5S is the base of TPM or another

excellent system and is sufficient base (also as you know 5S is not the base but one part of necessary condition.).

And most worrisome misunderstanding is the case of the composite of (1) & (2).

Now Shitsuke in supervisor, foreman or line (group) leader

First of all let's think the role and job regulation of foreman.

In your company what is the standing position and job regulation of the foremen who are called differently foreman or line leader or group leader depending upon the organization of the company and are the supervisors of frontline in gemba? In your company, the role and the standing position are clarified in the job regulation which is required in ISO 9001?

(From the job regulation of an excellent company)

I introduce the feature of foreman in the job regulation of an excellent Japanese company. And the following feature of Japanese foreman is not common in the world.

Job role: The implementation and accomplishment of the plans of production in safety, in the delivery time, in quality and in efficiency.

The control objectives: Workers, Materials, Machines & equipment & tools, Standard and Environment.

The objectives of role: Safety, Labor efficiency, Machine efficiency, Machine performance in PM, Material flow and scrap reduction, Number of worker & line formation, Attendance, Education & training, Evaluation of skill, Kaizen & implementation (QC circle, Suggestion Scheme & Kaizen), Workmanship standards, Maintenance of graphs & Charts, Environment, Problems occurred & countermeasures and Daily & timely report (to his superior).

Yes, the sphere of his responsibility is so wide and many. On the other hand he needs to manage problems (irregularities) daily happened before (for instance) stopping the line, accident. And the problems assumed in gemba are in Labor, Materials, Machine & equipment and tools, Environment and Production.

Labor: Accident, Act & object of out of standard, Excess production, Useless Movement (Waiting, Walking), Erroneous production, Lack of capacity (number, absenteeism), Skill level, Team work.

Material: Obsolescence, Excess and Needless, Level of Stock (Stock Rotation Ratio), Quality, Shortage of material & parts, Delivery delay, Mixed materials & parts, Wasteful spending of material, Loss of storage (Control cost, Handling, Space, Equipment).

Machine: Stop in trouble (more than 15minutes), Stop in trouble (less than 15minutes), Noise, smell, Vibration, Malfunction, Variations in speed, Lack of capacity, Lack of Accuracy.

Environment: Temperature, Humidity, Lighting, Noise, Variation of electricity, Change of air pressure, Smell, Dirt, Danger.

Production: Excess, Delay, Lack of production, Erroneous.

In the job regulation these elements are clarified as the role and responsibility of foreman. And it is possible to say that the job of foreman is the key of factory management. Now let's focus on his job of "education & training". He needs to train his workers (new or old whatever) in his line. In large company, it is common to have the education and training area to teach the company regulation and basic training. And in the actual line the foreman needs to teach and train the necessary technique, use of machine & tools, instruments, records---. And also he needs to teach and train the job regulation, standards, visual aids, team work and discipline in the OJT (on the job training) including 3S.

You say can he do all things? Yes, it is possible to do in basic condition 3S.

3S implementation: I wrote that for implementing and maintaining 5S, 3S is essential.

For maintaining 5S, 3S is necessary--- A little it is not understandable, but it is true. As the foreman who is a front-line supervisor in gemba, he needs to sniff out the irregularities (abnormalities) before becoming the problems (or troubles) such line stop or accident. And he needs to keep the condition of visual control.

I wrote "Egg first or chicken first?" in the last description. Anyway initially a company needs to make effort to gain the condition of Seiri, Seiton and Seiso (which are not the situation of 5S yet) whatever to hire the special house keeper or to establish the special team. And the best idea from my experience is to make the Katazuke campaign and monthly continuous katazuke firstly and after the activity gradually to switch to 5S activity with whole gemba workers.

Here I write the points of education & motivation of foreman to his line workers.

- (1) Morning greetings: take initiative and show the example
- (2) Working clothes designated and appearance
- (3) Safety in act
- (4) Check start of production: machine, equipment, jigs, instrument, materials & parts, air pressure & electricity and the records
- (5) Quality: One daily initial product quality check
- (6) 5S situation
- (7) Washing hands, remove dust of shoes
- (8) Keep beginning time
- (9) Report, Contact and Consultation
- (10) Physical condition

(11) Confirmation of daily target

(12) Standard work

Once again can he do all things? Yes he can do. His sphere and OJT items are so many. But he can because the number of his workers are several to less than 30 as one unit of control which should be the controllable number.

Why is the condition of 3S important? In the condition which should be, the foreman can identify the irregularities and problems and can correct these and also scold (educate and motivate with love) the worker who made the mistake which for instance he didn't return the tools or didn't put the material in correct location or didn't keep the workmanship standard. For teaching the meaning of 5S, discipline, and job role to his workers, he needs the condition which should be.

For managing factory the position and job role of foreman is very important. Therefore an excellent company gives the importance to the education & training of foreman.

Next week I write a little more Shitsuke (Supervisor, foreman or group leader).

I write how educate and train a foreman.

35. Training of Shitsuke continued (Supervisor, foreman or group leader)

As I wrote last week the job role and responsibility of foreman is the most important key of factory management. And in this page I wish to tell you 2 things.

One is that if you desire to introduce 5S (or kaizen) you need to nurture both of gemba leader and the organization.

Another thing is that the back ground of 5S in Japan and yours are different and therefore you need to consider the proper way in the conditions of corporate custom & social culture.

Once again 5S

Seiri is the Separation of necessary and unnecessary things in the proper standard which in time axis. Seiton is the act of putting or getting back in assigned location.

Seiso is to sweep and clean. Seiketsu is to create the ideas for maintaining the condition of 3S and is the kaizen activity. The best activity of Seiketsu is to create the methods of eliminating the necessity of 3S activity.

Then now we are discussing the final item Shitsuke which is education & motivation with love for maintaining and making root in the company.

In this purpose what is the job role of foreman?

I wrote that the feature of Japanese foreman is not general in the world.

In my experience I can say that Japanese foreman and its organization which have the job role of trainer, teacher, succession of technique, supervision of front-line of gemba are the best in the world. And it is no exaggeration to say that the organization and foreman play the very important part of 5S, kaizen and maintaining the factory. Of course 5S and the maintenance also are implemented by the leadership of foreman. Why is it not common in the world?

I point out 2 things. One is the job role and responsibility. Another one is that Japanese foreman loves his gemba & coworkers, job and products. In my experience I can't think that particularly European, American or Latin American foreman love their job or products and gemba include their workers. I saw many cases of the foremen to quit the company. In general speaking, Japanese foreman loves his job and company. Why? Because a Japanese company chooses the person who has the aptitude for the job role, leadership and affection from the general workers. And one of important concept of Japanese company is to bring up the person as a foreman from the general worker and after the nomination.

These differences come from the system of hiring.

Japanese company still has the system of Lifetime employment and "wages based on the ability". On the other hand European, American, Latin American companies hire the foreman as the job in the system of "wages based on the functions".

The Japanese foreman gains the long year experience in the gemba and gets the chance of the position. Therefore even a line worker, he or she can have the opportunity to promote the position. On the other hand (for instance and general speaking) Canadian foreman can't teach the necessary skill to his line workers, because the training skill is not his responsibility. To say the extreme (but true story), his responsibility is to maintain the production in the normal condition and doesn't include the quality and efficiency issues. I tell the extreme but true Japanese story. In the era of the production manager in my previous company, I had a foreman (forewoman) of an assembly line. She controlled well her lines which are constituted of 34 women. Her job responsibility is to accomplish the plan of production in safe, quality, efficient and control the necessary condition including the absenteeism. In the job regulation, if a worker will be absent from her job, the worker needs to inform the foreman before the day and if absents 3 times with no information in advance, she can remove the worker from her line permanently which means dismissal. She implemented this rule strictly for maintaining her line. On the other hand she taught the necessary skill to her line members patiently. Up to this story, it is quite common in Japanese industry. She checked their health in daily communication and sometimes eliminated the woman who

was in menses from the elaborate job and gave other job. (It is not possible by a male foreman.)

Why I write the feature of Japanese foreman. I was required to make the conference and introduction of Kaizen by many countries and companies and firstly I told them that it is impossible to introduce without the proper condition of gemba organization, responsibility and authority. And I emphasize the leadership of foreman.

The methods or concept of 5S, Kaizen, TPS, TPM, and TQM are Japanese origin and are & were cultivated in above corporate custom. And it is not good idea to follow the same way (Japanese way) and necessary to make the strategy with the understanding of the different corporate, social culture and customs.

This column 5S also it is not possible to tell without the existence of the leader of front-line. Can the manager make Shitsuke which is education & motivation in OJT? Absolutely no! Shitsuke is the bottom line of 5S and should be taught how long term, when and by whom. Shitsuke is taught by the leader in OJT and repeatedly and permanently. The leader is not the policeman, but educator in love. Therefore the organization of foreman is important. Up to here I introduced the job role and responsibility of foreman in Japanese case, because I need to get your understand of the difference of the back ground of Kaizen and 5S in Japan and European or American company and it is related to the bases of implementation and maintenance.

By the way, I saw many companies who say the implementation of 5S. But most of the case it was only the incomplete Katazuke. Why I say incomplete Katazuke, because in the factory and/or back yard I saw many unnecessary articles in tidy and untidy.

Katazuke and 5S is different.

Katazuke is one of process of 5S and just the act of Seiri, Seiton and Seiso temporal. 5S is one of act of management.

Without Shitsuke it is neither possible to introduce nor maintain 5S. And without the leader of gemba & organization it is not possible to make Shitsuke because of the nature.

Once again the job role and responsibility of foreman is the key of success of 5S. And one of manager's jobs is to educate and bring up the foremen. The next is the menu of the education of foreman.

(From the standard of the excellent company)

The contents of the education and training of foreman

1) Business and Annual Policy: Company philosophy, Annual policy and policy control in total, motto.

2) Organization and job regulation and function.

- 3) Job role, responsibility and authority of foreman.
- 4) Human relations: Team work, "Report, contact, consultation".
- 5) Cost: Structure of cost, Cost control in gemba, Efficiency control, Quality control and quality cost, Cost in Machine, Scrap control.
- 6) Knowledge of products and design: Customer's requirement, function of products, design drawing.
- 7) Factory management: Policy control in gemba, Quality control, Efficiency control, Scrap & loss, Safety, Production control, Daily & visual control and graph & chart, Suggestion scheme, Kaizen, Machine and Control (PM) & TPM, Machine & instruments and jigs, Control of material, Control absenteeism, Skill control.
- 8) Techniques: 5S, 4Rs, QC circle and 7 tools, Design, Workmanship standard, Standard time, Computer and IT.
- 9) IE: Time study & movement study, Work sampling & machine operation analysis, Material flow & handling.
- 10) Visit excellent companies and factories.

These are implemented in 5 workshops of training camp.

Above organization in gemba, job role and responsibility, the contents of training are the case of the excellent Japanese companies, and not common in smaller companies. But it is true that any Japanese company has the concept or the management philosophy of which to educate and cultivate the employees. Even though the smaller companies, they focus on the education and training of skill & technique from the seniority to the candidate of next leader and from the leader to new operator. In such back ground, Kaizen and 5S have been nurtured and continued.

Now it is very clear that in other countries it is not realistic to follow the Japanese way because of the difference of the corporate culture. But the leader of gemba is essential for success. So, how can we bring up the leader of frontline of gemba?

My suggestion is to use the 5S activity and to let them implement the true 5S.

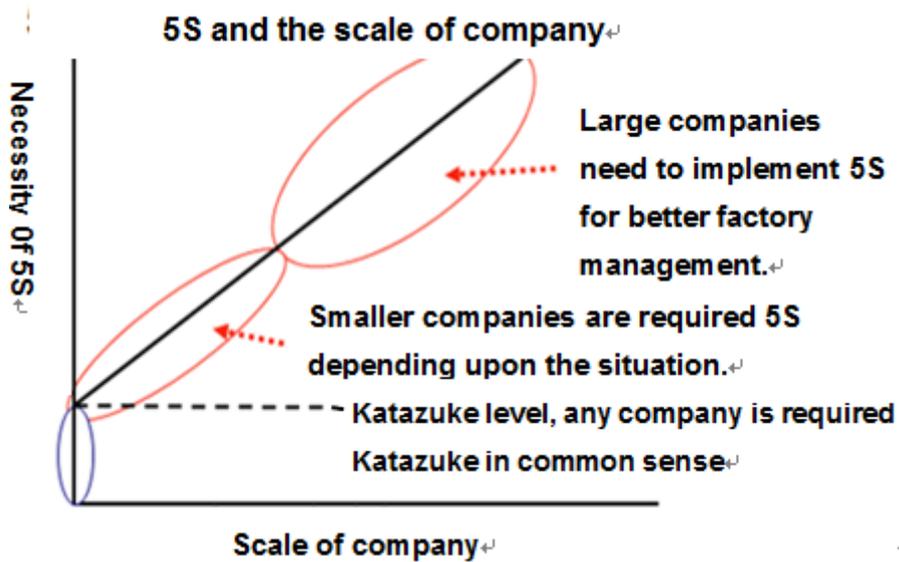
Next I write the Shitsuke from the position of manager.

The role of manager is to maintain and develop the factory. And for this job responsibility, the cultivation of gemba leader and establishment & maintenance of organization are essential.

And I write the process of introducing 5S by the group leaders.

36. Training of Shitsuke (manager)

I'm writing this column consciously for the manufacturing companies which are bigger than medium enterprises. (Small manufacturer doesn't need to be nervous to practice 5S, because of the degree of difficulty of the factory management. But Katazuke is necessary. (See the graph and photo below)



This manufacturer also is small company and has 26 employees and producing cutlery.



The products are very famous in the world because of the craftsmanship.

This manufacture also is famous as the metal processing industry, because of the very high and unique technique. The factory has 7 craftsmen. ↵



This factory also doesn't practice 5S and is not serious to 5S. Perhaps they don't know 5S. But it is not necessary to be serious because of the company scale. ↵

When a company becomes larger, the risk of which the acts of worker and the machine itself come to the causes of Muda becomes bigger. And proper factory management becomes to be required more. 5S is one of acts of factory management.

And for managing factory, the minimum unit is the group or line which is managed by the foreman or leader. Therefore any company gives the importance to the capacity and work of the foreman. Today I write the job role of manager for 5S implementation.

First of all what is the responsibility of managers?

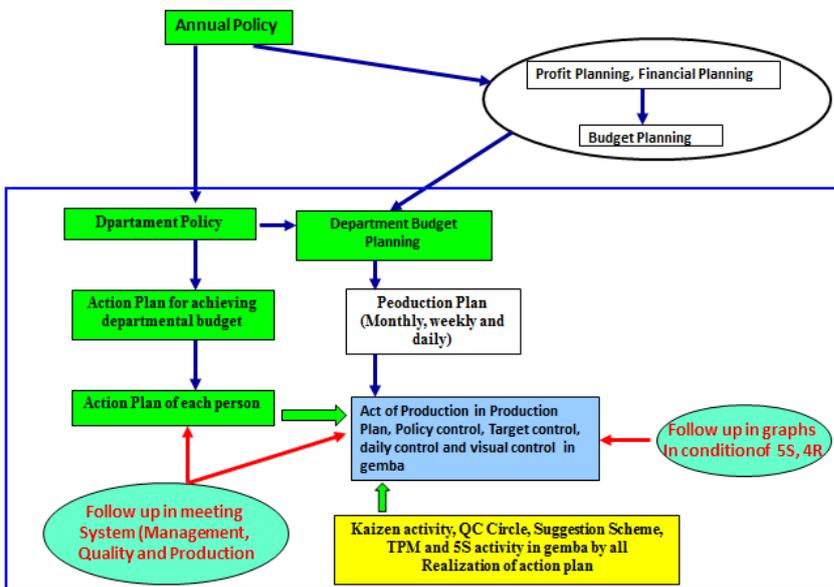
The job role of manager is

- Maintaining the current situation of his factory.
- Developing the situation in better usage of management resources.

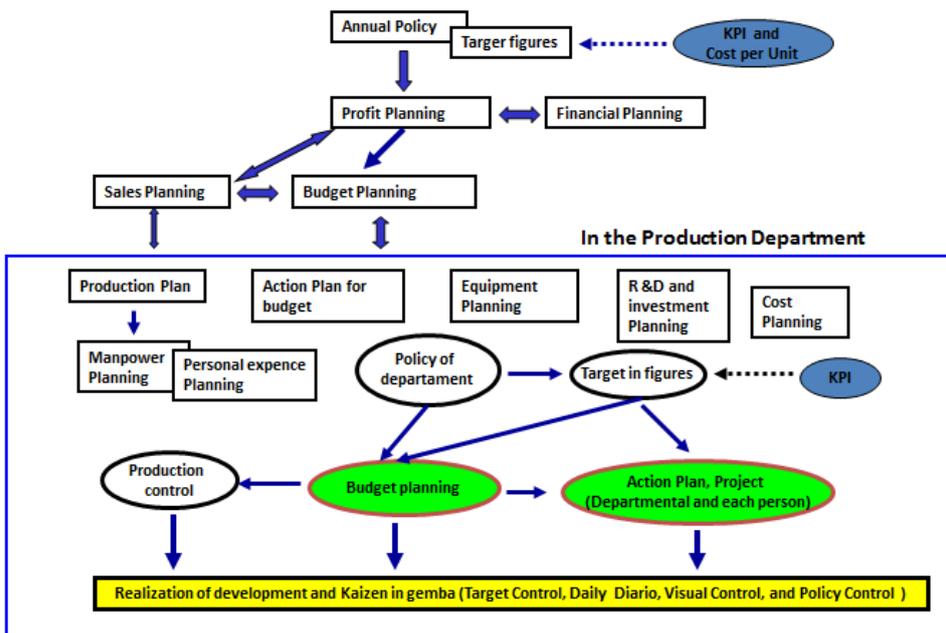
More directly the most important responsibility of manager is to achieve the annual budget plan which is the mile stone and compass of getting profit and is made with the annual policy, Profit planning, financial planning and sales plan.

A manager is evaluated with the result of profit in sound condition willy-nilly. Although slightly leave from 5S, I attached the construction of factory management which I call "Back bone of factory management" below. (See the structure below)

Back bone of Factory Management



Construction of Factory Management



When making the meeting with the client company in Dunkerque I commented that this company also has no back bone of company management and makes management in a haphazard way and recommended to establish the basic factory management. In fact there are many cases of no back bone of factory management in the companies of developing countries, even though are large companies. But they require the introduction of Lean, TPM ---. It is never supported to go well. Let's go back to the manager's job role.

For managing factory, excellent manager makes effort to establish the system which I call automatic system of factory management. And for this automatic system, the organization and the nurture of the foremen and visual control in 5S is essential. With through 5S situation in gemba, graph & charts which shows the targets figure and current situation, the manager can scold and educate & train the foreman and discuss and help. For instance if the line has extra or excess parts or materials which are out of standard, he needs to call the foreman and scold and make the question the reason and help if the foreman needs. For instance if the material or tool are put in an unassigned location, he needs to call the foreman and scold. He never scolds the general workers directory which is the job role of the foreman.

I recommend the graphs & charts in gemba which are not only to identify the situation of gemba, but also the tool of communication and education to the foreman. 5S also is not only the tool of visual control which is important for identifying irregularities and taking corrective action, but also the tool of OJT to the foreman.

The establishment of automatic system which is to be identified the irregularities and to be corrected by the foreman or workers before becoming problems is the job role of manager. Now I use the word of "scold". And please understand that my intention of this word is to nurture & educate the foreman with love.

Now for the education & training of leader, foreman, the implementation of 5S is good idea. (Introduction of TPM or other excellent system also has the function of the education & training of employees as well.) And the introduction of 5S is "kill two birds with one stone". Of course one bird is the cultivation of foremen, leaders. Another one is the establishment of one of important base of factory management.

Now here I describe the recommendable process of the introduction of 5S once again.

- 1) Understanding of 5S by managers: Meeting of reading 5S textbook around by managers. As the text book I recommend to use my description of this.
- 2) Choose and establish 5S committee & members: Choose from the foremen, leaders and future leaders. And decide the observer manager (rotation). Study 5S by committee members. Identify and confirm the purpose and role of the committee and the method of administration.
- 3) Deciding the process of the introduction
 - 1. Declaration of Kick-Off by the president in his direct speaking, poster and letter news

- 2. Information and Education to general workers in gemba
 - 3. Katazuke campaign: one month special activity
 - 4. Monthly katazuke activity continued after the campaign.
 - 5. Adding 5S activity implementation to monthly katazuke and follow up
 - 6. Weekly patrol and evaluation & weekly and monthly report by committee
 - 7. Manager's patrol and comment at 2~ 3 months each
 - 8. Presentation at the each past 6 months by the committee
 - 9. Final presentation of one year activity
 - 10. Visiting other excellent company by the committee members
- 4) Preparation
- 1. Responsible division in the map
 - 2. Installation of notice board total and individual area: Shows the organization of committee, declaration statement, weekly & monthly report, photos, graphs of the results of the evaluation in check lists
 - 3. Check lists of 5S, 4R and Seiso
 - 4. Standards and Visual aids
 - 5. Cleaning tools
- 5) Declaration of Kick-off by the president.
- 6) Katazuke & Red Card tactics: Campaign one month (Preparation 3 months before, Logo, Poster, Banner), and moving to monthly continuous katazuke activity
- 1. Preparation of Red card
 - 2. Deciding the Assigned area (but temporal) and identify with color mark
 - 3. Implementation of Katazuke activity and Red card by the committee members and other relevant foremen, staves and managers
 - 4. Report of number of unnecessary things, amount evaluation and photos by the committee
- 7) Seiso tactics
- 1. Visual aids to identify the points and area of Seiso and degree
 - 2. Seiso check list and education to the workers
 - 3. Preparation of Seiso tools and the location (but temporal)
 - 4. Implementation by workers
- 8) Seiri tactics

- 1. Monthly continuous Katazuke with Red card in the standard of necessary things
- 2. Making standard of necessary things & the quantity in time axis: Kanban card, Visual aids, Name tag, Jig board
- 3. Implementation of Seiri in the standard

9) Seiton tactics

- 1. Sign board in all assigned location, all machines & equipment, lines
- 2. Yellow line mark in floor, Standard color paint on floor for identifying 3A
- 3. Implementation of Seiton and check of 3A (Assigned Location, Assigned article y and Assigned quantity)

10) Seiketsu tactics

- 1. Competition of ideas of Preventive Seiri & Seiton & Seiso and Continuous kaizen activity
- 2. Deciding and standardizing better tool of Seiso of individual area or machine
- 3. Deciding better location of necessary things and standardizing with color mark
- 4. Making better jig board for keeping Seiton of jigs & tools

11) Shitsuke tactics

- 1. Deciding the contents of 4R check list
- 2. 5 minutes communication meeting with workers by foreman or leader
In front of the notice board and the machine or working area
- 3. Installation of other notice board to highlight the other KPI: Efficiency, quality, Absenteeism, Safety & Accident, Production plan & achievement result
- 4. Installation of mirror of life-size
- 5. OJT to leaders by manager: Daily visit to factory and patrol and communication with foreman by manager
- 6. Monthly and 6 months presentation by committee members
- 7. President visit
- 8. Monthly news letter
- 9. Visiting other excellent company by committee members
- 10. Final presentation by committee

With through such activity, a manager needs to cultivate the key employees. And one of important manager's jobs is to make such opportunities.

When I was writing this description I got a question and would like to respond to it.

The question is whether the hiring a 5S manager is good idea or no.

For this question I have already responded. But once again, it is not good idea because of following 3 reasons.

Firstly, 5S is basically one part of acts of factory management and the manager's basic job including the introduction. Therefore it makes the job role of manager to be fuzzy.

Secondly, the introduction & implementation is very good opportunity to cultivate leaders.

Hiring 5S manager is similar to the act of that the adult plays with the toy which he confiscated from the baby. A manager should do the higher-dimensional work.

Thirdly, it is very much costly. Basically the activity of 5S is costly in the initial stage. And additional cost of manager is never good idea. 5S activity is important, but doesn't give the value to the products and needs to be minimized in the activity of Seiketsu which is to create the ideas for maintaining 3S and preventive 3S which is the cheapest way.

But hiring temporal instructor (for instance) 6 months to one year is not bad idea, but is not recommendable.

Next I write a little more Shitsuke in manager.

Educating and training but still group leader or foreman leaves the company.

Once again my question

- (1) Can you love your job, working gemba and your people?
- (2) Can you let them love their job, work place and products?

I believe this description will be the final and write more than 100 pages.

37. Training of Shitsuke (Manager)

I wrote that one of important job of manager is to establish and maintain the factory automatic control system which is to identify the irregularities and the recovery before line stop, accident.

For the automatic system 2 things are essential. One is the condition of visual control based on 5S. Another one is the training and education of foreman. Now what is Shitsuke? Shitsuke is the act of education and motivation with love. As a manager why or what is the purpose of Shitsuke? Shitsuke is essential for maintaining factory and automatic control system.

Also I wrote the outline of construction of factory management in the word of "Back bone of factory management" and tried to explain the figure of factory management and the position of 5S. And I told that for introducing TPS (or Lean),

TPM, TQM--- this back bone is essential and just 5S is not sufficient as the base. Therefore when I teach the introduction of (for instance) TPM I recommend the reestablishment of the basic factory management if the company doesn't have the condition sufficiently.

In the step of Shitsuke I saw many cases of failure to introduce and stabilize 5S. Here let's look the case of failure.

When looking the case of failure of 5S keeping the company does only the beautification activity or stops the activity itself. Why? Of course the company who hasn't the corrective meaning of 5S, he stops the activity very easily. But even though the company understands 5S, there are many cases of failure which they can't continue the activity. Most of the case of failure is at the step of Seiketsu and Shitsuke.

Why they fail to continue? The 3S (Seiri, Seiton Seiso) doesn't give a value to the products and is costly. Therefore it is necessary to minimize with the ideas of Preventive 3S. During a machine working, the machine and the area becomes dirty. And if allows or gives up the situation, gradually gives up the maintenance of 5S. For Seiketsu the Kaizen activity is essential. Or Seiketsu is per se the activity of Kaizen.

Another one of possibility of failure is at the step of Shitsuke. 5S is the concept considered very deeply, because 5S has both of hardware which is the system of physical activity (4S) and software which supports to keep 4S effectively. And when considering Shitsuke, it is necessary to think again why you wish to introduce 5S. Your purpose or wish to the introduction is for better condition of factory management including the wish of TPM, TPS introduction. And I told the words of visual control, basic factory management, back bone and automatic system of factory management.

Shitsuke is essential to make 4S work well.

Shitsuke is not just teach the meaning of 4S, but to make the atmosphere and OJT in the gemba with dialog repeatedly.

Now the Shitsuke by manager

Once again the Shitsuke is one of important job role of manager. So how the manager should educate and motivate 5S to his foreman and/or leader. I describe the ideas below.

One is to plan the Seiso (or Katazuke) campaign and let his foremen plan it.

I attached the very good example of Seiso campaign below which was presented in the conference which I participated in Chile. (See photos below)

One is to establish the committee which is permanent organization and after the introduction and stabilization is changed the name to Kaizen. About the activity of the committee I already wrote and omit here.

Final one is the OJT. The important condition of OJT is the dialog with foreman. Do you make dialog with your foreman in gemba sufficiently? For making dialog it is necessary to make the atmosphere which is 4R condition in the check list and 3S condition, graphs & charts of KPI, policy statement, safety statement. The foreman nevertheless quit the company.

I have got the argument which even though making education and motivation the foreman quit his company.

It is quite true. And a foreman quits. This phenomenon is very general in the overseas countries (meaning is without Japan) including very large and famous company.

When I was in UK, I could make a conversation with Mr. Shuhei Toyoda who was the director of TMUK (Toyota Motor Manufacturing UK) and is the president of Toyota Boshoku familiarly. One day he was looks like displeasure because a supervisor quitted TMUK. Mr. Shuhei Toyoda had been bringing up him with affection 4 years. But he quitted and moved to other smaller company as a manager after getting the name value of "having worked in Toyota".

I also had such bitter memory in Chile. One was my excellent student who worked in a famous Chilean company. I recommended him to go to Japan for getting more experience and let him go via a business of JICA (Japan International Cooperation Agency). However after the training in Japan, he quitted the company for seeking better job. In my previous company also I got such bitter experiences. But it is quite natural phenomenon in the world.

Once again even though educating and motivating foremen, it is not possible to expect their work in same company permanently.

But still I recommend to direct such opportunity of education and motivation with love for foremen. And it is quite true and I can say that with through such repeated and permanent activity, your company can stabilizes good tradition, corporate culture and factory management. The effort of bringing up the employees never becomes wastes to the cost. (Even though in high turnover.)

It is possible to share the sense of value with foreman, but not possible let him love permanently his job, working area and products.

By the way last week (number 36) I wrote the recommendable process of 5S introduction and wrote the order as --- Katazuke, Seiso, Seiri, and Seiton ---.

And I was pointed out that the order of Seiso, Seiri--- is wrong and Seiri, Seiton, Seiso is correct.

And I need to respond to this indication.

My recommendable order is Seiso, Seiri Seiton---because of following reasons. Seiso is much easier than Seiri.

For Seiso it is necessary to prepare the visual aids, Seiso check list which I wrote the typical ideas. But still much easier than Seiri.

Also Seiso can be done and participated by any bodies including line workers, therefore is useful to constitute the sense of "Whole Peoples Participation" like as Katazuke campaign.

On the other hand Seiri is so difficult.

Seiso also requires the standardization. Many times I wrote, but again. Seiso is the act of Separating necessary things and unnecessary in the time axis standard.

In the textbook of 5S explain that unnecessary things are like as personnel belongings and things of no relating to the production.

This explanation is quite true but is too primitive and childish.

For instance in the line, there are some kinds of parts. Parts A is used now, parts B is used at next shift, parts C will be used next week. And parts D will be used next month. Those are in time axis.

In the general common sense D and C are not necessary in the line and should be put in the warehouse. How about the A and B? Depending upon the standard.

For instance in the Toyota assembly line, the stock level is identified in the Kanban card. And if the kanban card shows 2 stock in the process, the third stock is unnecessary stock even though its same parts will be used one minute later. You can imagine how it is difficult to standardize the stock level.

In the Katazuke activity also it is necessary to prepare the standard. But in this process the standard is not so serious, but just in the range of general common sense.

Again I recommend you to have the order of Seiso first.

Finally my question

Do you remember that I wrote in the column of number 33? Once again

When I participated the meeting of a client company of my student consultant in Dunkirk during my business trip, there was a question from the managers how to introduce the mind of kaizen and activity. Then I made the question to them.

Can you love your job, working gemba and your people?

Can you let them love their job, working place and their products?
And if you can't both, it is neither possible to introduce Kaizen nor bring up the mind.

And approximate their answer was that they can love their job of the manager and devote the passion to their job role. But the working area, products and workers are not the objects of love.

Also the managers said that the gemba, workers are not the objects of love, but they can marriage with the duty as a manager. Their answer was as if the story of marriage of convenience, but is acceptable and approximate thought in the world.

Another question "can you let them love----
(It is the conclusion of this chapter.)

We can't let them love. However as the job role or duty, a manager should strive to let then share the sense of value which is shown in the word of "Whole People's Participation (to the management)" and should produce.

One more time I write.

Next week I write the conclusion of 5S description.

Preparation meeting by committee members

Scheduling, Red Card preparation, Format of Red Card list,
Assigned area for Red Card, Members and map, Logo & poster
& banner, notice board, method of evaluation temporal, material,
Education to workers



Notice board↵
Organization, Members and map, Scheduling↵



The day of Seiso campaign↵



The day of Seiso↵

Participated by the general manager and the production manager↵

Good activity for "Whole People's Participation"↵



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This is a good example of Seiso campaign (actually katazuke). ↵
Katazuke campaign itself is good activity for not only to make good situation of working area, but also educating and motivating peoples even though no to link to the introduction of 5S.↵
One of manager's job is to direct such opportunity. ↵

When writing this column I have got the news of a death. Mr. Eiji Toyoda who is the cousin of Kiichiro Toyoda and nephew of Sakichi Toyoda died at Sep, 17th and has been 100 years old. He was the president during 1967 to 82' and is called "The Father of Restorer of Toyota".

As I wrote before, the concept of 5S was created during the development of TPS by Taiichi Oono and Shigeo Shingo. And Taiichi Oono wrote about Eiji Toyoda in his book (Toyota Production System) as follow.

When Eiji Toyoda and Kiichiro Toyoda made the discussion, Kiichiro Toyoda told the concept of (JIT) Just In Time. This concept was conveyed to Taiichi Oono also.

He was the president of who understood the expansion of JIT, Kanban which were and are the ideas overturned of the general common sense, from a factory to whole Toyota.

Yes, TPS was established under his back up. He left several sayings. And one of famous sayings is "Even dried towel, water comes out if use the wisdom." I would pray for the souls respectively.

Now 5S

As I wrote in the prologue, my motive of this description and publication is to contribute to be understood 5S by all manufacturing industry.

5S is Seiso, Seiri, Seiton Seiketsu and Shitsuke. And I encourage that for introducing 5S, firstly implement and stabilize the Seiso (after the Katazuke). And during the introduction of Seiso, the preparation of Seiri which is to make the standard of identifying necessary and unnecessary in the axis of time. Seiton is the issue of the method of how to put the assigned things in assigned quantity in assigned location and is not so difficult. And Shitsuke is the education & motivation to keep rules. Most of the case of failure is at the step of Seiketsu and Shitsuke. Keeping 5S is costly if Seiketsu can't be worked well and is stopped before getting the fruits called "well controlled factory". 5S is the act of the factory control and if Shitsuke isn't implemented well, is not possible to maintain in both of meanings which are keeping 4S and the act of factory control.

I wrote that 4R check list is essential for Shitsuke. Now here a little more I wish to complement the 4R. I said that for the implementation of 5S, the activity of 4R is essential. 4R is the meaning of "Make rule, Teach rule, Keep rule and Change rule". I wrote that the function of Shitsuke is the software for 4S. And the base of Shitsuke is 4R. I made the checklist which these check items show the situation of which a factory should be.

The use of a project which is a temporal organization is not recommendable, because it takes long years to create the new corporate culture. And I recommend to establish a committee organization. And in the new corporate culture, the mission of education & motivation of employees is included.

My description is not my original word, but aggregation of the voices of forerunners. I wrote 5S from or including the point of view of Factory management. And I think my introduction of 5S may be anything new and let you be confused. But it is important to describe from the factory management, because the purpose of the introduction of 5S also for the factory management.

5S is based on the Japanese culture. And I can understand that it is a little difficult for the foreign countries, but is possible to implement.

5S is useful concept or method and please use it for your factory control.

I wrote this more than 110 pages including example photos and figures and wish to contribute to your activity. And I wish your success!

Sep.18.2013.

Koichi Kimura

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