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Experienced Manufacturing Professional "Discovering Solutions with People"

TPS Manual - Chapter 1, Section 5

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Section 5 - Labor Reduction and Human Relations

Labor reduction is often considered as speeding up of labor; but the Toyota labor reduction activities aims mainly the elimination of unnecessary activity, and it does not mean labor intensification or speeding up.

For example, a person must walk of five or six steps to pick a part for the assembly line, or they are going back and forth many times to the car.

By directing those five or six steps, and the effort of going to and from the car, into work that clearly results in added value, we will be relatively reducing labor.

Like this example, everyone believes the work they are doing as part of the task, yet there are many unnecessary activities that do not add any profit

The idea is to eliminate these unnecessary activities (behaviors); shifting a person's energy to more useful work leads to respect for human dignity.

There is nothing more demoralizing for people who are offering their precious energy and time to the company, and are forced to waste it. Concentrating their efforts into work that's useful is the beginning of respect for people.

Human beings are motivated when they focus on meaningful work and are recognized for the value of their own work. On the contrary, when they are forced to meaningless work, consciousness of their work value becomes totally out of question. And of course, we can't expect them to be motivated (good morale).

There's a limit to the energy that can be produced by a human. To what extent have you been able to re-direct this effort into useful work is linked to respect for people.

If a problem arises with labor reduction being labor intensification, or ignoring humanity, then there was something wrong with the way of reduction, or it is because of some misunderstanding.

Thinking from other people's point of view to build true relationships

When conducting labor reduction activities at the workplace, if they put themselves in the shoes of the people doing the work, then true human relations will be developed. There should be few problems like complaints of labor intensification surfacing.

If they stand in the workplace every morning to observe how they do their work and think from the people's point of view to achieve improvements, making a full commitment till the improvement will finally works, then the supervisor will not be isolated from the people in the workplace. We cannot build true human relations by mere superficial praise or flattery.

There is a story about Hirobumi Omatsu, a famous coach of the Japanese volleyball team. It is an old story, but I think it helps understanding the development of human relations in a company, so I quote the example below.

Coach Omatsu, never flattered or coaxed the team to encourage or motivate them. Instead, he thought from the player's viewpoint. By doing so, he established a relationship of mutual trust with the team. His rigorous training was based on mutual trust. In the game, he would make the best use of players and the players did their best to meet the expectation of the coach.

For a supervisor to have the workplace following their instructions, a relationship of mutual trust must be built between the supervisor and the operators. In other words, there must be true human relations.

To achieve this, the supervisor must have respect for people as a foundation, while constantly putting themselves in the people's shoes. They must train them while fully understanding them, stand in the lead, and proactively confront all problems, no matter how troublesome they might be.

What is especially important here is the fact that when there is any kind of problem in the workplace, someone is troubled by it.



For example, “The work is hard,” “This is dangerous,” “It is difficult to adjust, producing too many defectives despite our hard work,” “The demand from the subsequent process is so variable that we can’t decide on our priority order,” “The Standard Work sheet is difficult to read and understand,” and so on.

Everyone complains these kinds of issues at the beginning; however, if a prompt response is not taken, then people gradually cease to complain, and the problem left unsolved^[1]. If you ignore these issues and just keep saying “Reduce people!” or “Do improvements!”, it only leads to growing discontent and complaints.

If a supervisor puts off work they must do, and just pushes it onto the operators, it is only natural for the people, as human beings, to feel distrust towards them.

A collaborative attitude of supervisors and staff to share the difficulty and hardship of people at the workplace, to think from their perspective, to solve problems together, will establish their trust in the supervisor. Which cultivates working together for improvements.

By following the concept of “people must be treated as individuals, as human beings,” which is mentioned in TWI’s **Job Relations (JR)** as a foundation, it is important to take care of various issues of human relationships to make full use of the people’s capability and abilities.

This spirit is the essence of human relationships, which has not changed and will remain unchanged. Aren’t we partially lacking in the senses of unity and trust, which arise from the experience of sharing the meals, struggles, and joys together. In the workplace, it is important to revive the sense of solidarity. The labor reduction activities must be deployed from that solidarity.

In doing so, it is important to let people participate in the activities so that they can share their opinions with us, and come up with ideas together.

The concept of labor reduction itself is reasonable and convincing to everyone. If the reasons are misunderstood and are a hurdle for relations, it is often that the mutual trust has already faded. And the people don't have the mindset to try to understand the aim of the supervisor.

As an example, let's discuss a case at a factory when they improved the factory's final assembly line.

(A) A brief explanation of the situation:

1. Late September 1946: the Takt was increased from 3.6 minutes per vehicle to 3.3 minutes per vehicle (without increasing the number of operators).
2. Through the end of September to late October: 120 - 150 minutes per shift of line stops occurred.
3. Many complaints from the operators were reported to the labor union such as: "Too much work," "This is labor intensification."
4. Mid-October: together with the technicians from the service department and we went to the production lines.
5. We applied improvements centered around the problems that people have difficulties with on the line.
6. The number of line stops during the mid-November have been reduced to 20–30 minutes per shift.
7. Approximately 100 improvement activities, large and small, were carried out. Only the first 20% of the improvement were carried out by the supervisor, the remaining 80% were applied by the people at the workplace.

(B) The reaction in the workplace:

1. The complaints, which were reported from early October to late September, are no longer reported at all.
2. Many ideas for improvement were proposed by the operators in the workplace, and are getting implemented one after another.
3. In the evaluation meetings of team leaders and supervisors held in November and December, the following opinions were given: The people in the workplace became more motivated. They developed positive attitudes. There is still some unnecessary activity that needs to be improved. Team leaders need more time to spare so that they can sufficiently focus on improvement. It was very good that their requests have been immediately responded. From now on, we'd like the technical service department to fix problems at the workplace immediately. They should not leave problems unsolved.
4. In just in one month, the motivation of the workplace has been raised a lot. Complaints about "labor intensification"[\[2\]](#) completely disappeared.
5. Recently, this is how the workplace feels: Whenever they spot the improvement staff, they come and discuss immediately whatever problems they are facing. Suggestions for improvements are proposed by operators: "It would be better if we do this." In implementing the improvements at the workplace, the operators decide the arrangements on their own, and carry out it together after regular work.

Mutual trust starts with participation in improvement activities



Supervisors and staff must respect the proposals and discussions coming from the workplace, and collaborate with operators to promote labor reduction activities.

All people involved can enhance their motivation towards improvement and have a sense of participation in the improvements. Reducing the feeling of dehumanization that comes from the monotony of the work.

From the operator's point of view, they realize that they can improve their workplace by themselves and feel the sense of achievement and satisfaction that they accomplished the improvement of their own. This will enhance their confidence, encouraging them to find further possibilities of improvements.

The sense of achievement, sense of satisfaction, and self-confidence are keys to overcoming the feeling of dehumanization. This is a source of motivation and eagerness that "we can do it." In a workplace with this kind of awareness, you can expect natural rise of morale.

An example: When the production of a machine factory needed to be increased, the front supervisor gradually increased the speed of the assembly line conveyor, while the rear supervisor consulted everyone about what to do.

In this example, the front supervisor made remarkable increase of production in the beginning, but were

stuck after a certain point. The rear supervisor that took some time before implementing the improvements achieved a final faster production rate.

Supervisors and staff should always try to promote the improvement activities together with the people who work there, and spare no effort to create an environment and atmosphere in which everyone can participate in the activities.

Signals are used in every plant to create the conditions that enable visual management. They make it easier for everyone working at the place to find the problems and improvement points will be easy to discover. To enhance the desire of everyone to participate, we actively work to include all the people in labor reduction activities.

In our plants, with the supervisor at the center of the workplace, people propose constructive ideas to each other, such as: “This process will be better done by this way” or “There will be less unnecessary activity by doing this process in this way rather than that.”

This eagerness to pursue their aim to reach satisfaction and fulfillment, their morale is the evidence of the smooth human relationships in the workplace. It is an embodiment and manifestation of our founding spirit.

[1] This is a source for many of ‘people problems’, like bad attitudes, especially towards managers. The leader has left the problem unresolved which makes for an unpleasant workplace.

[2] Speeding up of work, making work harder.

| *To be continued...*

Section 6 - How to promote labor reduction activities

For more information, contact Mark Warren (mark.tesla2@gmail.com)

Written by



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Experienced Manufacturing Professional "Discovering Solutions with People"

5 comments

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Chockalingam Ambalavanan
Designer

... 2d

Nice one. I got the guidance

Like Reply



Franck Vermet
Manufacturing Excellence Leader

... 3d

Guys, I have no idea why you went so sidetracked compared to the original gold nugget posted by Mark. The question should not be in my opinion "how do we reinvent the past" but rather "how come we have not done this while it was understood and known at Toyota since 1973 and we have been brainwashed by the lean toolbox of all the Japanese dictionary of terms very few people truly understood. No one understood there were prerequisites described in these manuals. This beats me especially when these manuals talk about common sense logic which an 8 year old could understand.

Like Reply | 1 Like · 2 Replies



Daniel Lang
Practitioner & Promoter of the Deming...

3d

Franck, for some reasons the comments went out of order. I was responding to Mark Warren's comments. One of the weaknesses of a LinkedIn conversation.

Like Reply



Mark Warren
Experienced Manufacturing Professional...

1d

Guilty... I took the bait and responded to the Deming picture post. The intent was to redirect and point out that this series was not about promoting Deming, but sharing the clear detailing of TPS in their first manual.

Like Reply



Daniel Lang
Practitioner & Promoter of the Deming Management Method...

... 3d

Interesting, debunk references to Dr. Deming having helped develop TPS, as I want to debunk Lean/Six Sigma being the legitimate offspring of TPS. Dr. Deming was hugely influential in Japan. His management method (14 Points) was retrospective condensed overview of the management method that developed in those companies that obtained a new level of quality. Dr. Deming was an observer of the organic growth of quality in Japan. Lean and Six Sigma is an Americanized copy of TPS. Lean and Six Sigma origins in the west started with a profound ignorance of what had occurred and what did occur in Japan during the quality revolution. I would rather side with "the ignorance" of Dr. Deming than "the knowledge" of the West who really does not get it with their short term focus on profits.

Like Reply | 1 Like · 2 Replies



Daniel Lang
Practitioner & Promoter of the Deming...

3d

There can be no doubt Dr. Deming's mentor was Dr. Shewhart which is clearly manifest in his understanding of variation, SPC and PDCA. And there also is no doubt that Sarasohn had a contribution in the telecommunication industry, but from the historical facts i.e. the Deming Prize, Japanese comments made toward Dr. Deming, etc in my mind Dr. Deming influence and understanding is the majority. PS. Taylor had an influence on Ford, and Taylor had an influence on the meatpacking business. It was meat packing mass production that gave Ford his picture of the assembly line.

Like Reply | 1 Like



JF Pelley

Leadership Strategist, Professional Trades &...

3d

Daniel Lang I see we have yet to convince Western management of their blatant disregard and dismissal for Truth. This is exactly the state of mind Deming was speaking about when he said to American corporations, "export anything around the world... except American management."
He said that 40 odd years ago, yet, here they are with the same old tool box to fix the same old problems. I sure do laugh out loud. LOL hahahaha

Like Reply



Eric Budd

Improvement Coordinator at PEAKER SERVICES INC.

... 3d

It is informative to read the text of Shoichiro Toyoda speech when he accepted the ASQ Deming Medal. "As you are all well aware, Dr. Deming came to Japan following World War II in order to teach industry leaders methods of statistical quality control, as well as to impart the significance of quality control in management and his overall management philosophy. He was an invaluable teacher to those of us involved in industry at the time, playing an indispensable role in the development and revitalization of post-war Japan....I believe that TMC today [Toyota Motor Corporation] is a result of our continued efforts to implement positive change in pursuit of the Deming Prize [Japan's top quality award]."

Like Reply | 1 Like · 1 Reply



Marley Lunt

Lean Strategist at Marley Lunt Solutions

3d

An interesting article on the subject: <http://honoringhomer.net/wp-content/uploads/2014/08/reshef.pdf>

Like Reply



Allen Scott

Management / Quality Consultant

... 4d

<http://www.bhlingual.com/images/640x360/blog/the-origin-of-lean-production/W-Edwards-Deming-seminar-in-Japan-1950s.jpg>

Like Reply | 4 Replies

[View previous replies \(2\)](#)



Clifford L Norman

4d

Here is the video, <https://blog.deming.org/2017/02/myron-tribus-interview-of-homer-sarasohn/> Charles Protzman was the colleague of Sarashon.

Like Reply



Mark Warren

Experienced Manufacturing Professional...

4d

Clifford,
Yes the history is interesting, including that they contacted Shewhart. While I have a digital copy somewhere, and have reviewed one of the original manuals, I don't remember exactly the details, only that they covered some information about quality control. The SPC references come more from Sarasohn's memos and notes that are part of the SCAP records at the National Archives (NARA2).
I was just wanting to debunk the references to Deming having helped to develop TPS. I put this in the same category as Taylor's Scientific Management promoters inferring that they had something to do with the Ford productivity at Highland Park.

Like Reply

