

Training Within Industry - Job Instruction

Many companies solve their problems by working on those problems in a targeted way. In retrospect, these problems could have been prevented, by structurally securing processes. However, this appears to be a hell of a job: for standardizing work processes is not a "business case" on set. This article describes how, by use of TWI (Training Within Industry), the standardization of work processes can have a concrete approach and can be realized step by step, while at the same time the organization becomes more stable.

It takes too much time

Hearing such ideas, working on standardizing processes seems to be overwhelming. Organizing the culture and structure in an organization in such a way that everyone is doing the right thing, seems to be a "mission impossible". And especially a mission that takes time. Quick results seem unachievable. Training Within Industry (TWI) is a method with an answer to this problem. TWI aims to better support supervisors in the performance of their daily responsibilities. The TWI Methods train supervisors in the skills they need to create a climate for change, improvement of methods and standardization of work.

TWI now and then

Between 1920 and 1940 the original Training Within Industry (TWI) program was developed by the U.S. Government War Production to support the war effort by boosting industrial production. It was necessary to guarantee a good production of airplanes and weapons, working with people who had never worked in factories before. It was a resounding success. TWI was introduced in Japan during post-war rebuilding where it played a key role in quickly re-establishing the industrial base. Between 1950 and 1960, Toyota used TWI to train its employees as part of the emerging Toyota Production System, the world's first Lean Manufacturing Program. TWI is an integral element of today's Lean Manufacturing and Kaizen strategies.

TWI distinguishes five needs for a good supervisor:

1. Knowledge of work
2. Knowledge of responsibilities
3. Skills to lead
4. Skills to improve methods
5. Skills to instruct



For each of the 3 skills that can be generally trained, TWI developed a standard program.

- Job Relations (JR) for the leading skills
- Job Instruction (JI) for the instruction skills
- Job Methods (JM) for the improving methods

Since the method proved itself in years, it can be used successfully in almost every organization. Thanks to Patrick Graup and Bob Wrona, TWI had returned to the West, after it has long been forgotten. The material is matured and extensively tested, but nevertheless a number of things need attention while implementing.

In this article we focus on implementing the Job Instruction Program: How do I make sure that we train people according to the standard method?

Implementing Job Instruction

Before being able to give clear instructions, we have to know the necessity to instruct. Next questions have to be answered first:

- “In which place is the need for instruction the biggest?”
- “Which tasks cause a lot of variation in work?”
- “For which employers is it important to learn a standard way of work?”
- “Is it about new employees, new installations or is the reason that everyone has his own way of work at this time?”

Depending on the answer, a plan is formed, in which instructors will be selected and responsibilities in the process will be defined.

Before the instructors are going to learn the TWI Job Instruction method, it is important to define a clear route for training. We experienced that it is very useful to define a number of concrete focus tasks before starting to train, so that these can be worked out and trained in practice immediately.

Important here is that providing resources (especially time for the instructor and the employee) is the responsibility of the operational management. Support in the process is desired, however choosing what has to be trained and when, stays the responsibility of the operation. Make sure this is clear in advance to the people involved and involve those implementing Job Instructions.

Training Job Instruction

Next it is time to the future instructors to learn the Job Instruction method, by following the standard: a program of 5 times 2 hours theory. This standard is (besides some adjustments) identical to the original from the 1940's because it's a proven successful approach. Our tip: do not change it! Many companies have developed their own programs, based on the material, and in the end they had to conclude that it did not become better. In the book “TWI Implementations” a few practical cases are described about this issue and the message is very simple: follow the standard!

In this theoretical part of 5x2 hours, the method of giving instruction will be learned and practiced on the basics of small tasks from practice. These tasks are demonstrated in a classroom. During the training the 4 steps of giving instruction are practiced in and making a good training standard (task analysis) are taught.

Job Instruction in practice

After the training a fast transfer of knowledge to the own practice is very important, so that the theory learned can be applied. The motto is: get started with those few developed task analyses and test them.

For the same reason we often link the 5 x 2 hours of training right on to practice. Right after theory we get started at the work floor. In groups we analyse the work, make task analyses and train these, so that we test the task analysis to create a good training standard. Participants learn that it always take a number of improvement steps to get a good and simple task analysis. In this way a number of real standard are developed, which can be taught to people in practice right after the training week.

Furthermore, we also had a positive experience by at the end of the week letting one of the instructors to instruct a manager. In this way the supervisor directly learns why following the steps of Job Instruction is that important. It happened, for example, that during practicing - the HR Manager of the head office was taught to change a film roll - the HR Manager said she felt sure to make a good job now. On the other hand, observers were also surprised by the instructor and her performance and she was proud, when was said, that they now trusted her on the task 100%.



Such an exercise shows a few things:

- 1) For the instructors: Yes, the method works: we can even teach it to our HR Manager, who normally only works in the office.
- 2) For the observers: Oops, this work is more difficult than I thought, I can easily forget something, but still it works! "Dosing knowledge step by step" is necessary.

For that reason we always invite observers to the training, so that they also get involved to the program and later on can give the right support.

When is the time to enroll?

After the training it is time to bring the learned theory into practice as soon as possible and to see if this gives the desired effect: less variation, less mistakes, faster production and so on. It is important to measure this and to evaluate the process. Not for showing that the

method works, but to see in which way the method can support your organization best. After this success becomes visible, the program can be enrolled further rolled. During the enrolment it is important to continuously improve the existing instructed tasks. Task analyses can change and it has to be clear how this process works. In this way employees can also make use of their knowledge and improve the standard. It has to be clear who tunes and checks this change and how everyone becomes trained again. The difference from before is that there is now a process of instruction and that way of instruction is standardized, allowing anyone within short time back on the latest stage in performing the task.

The benefits of Job Instruction

We already see many companies focusing on supporting their employees. More and more often we see a clearer presence of the supervisors in organizations arise, because there is a need for clear control. New employees need training and it is not easy to get a work standard from employees who already work in the organization. Job Instruction offers a standardized approach to capture this work standard (in a task analysis) in a form that can also be trained to all employees in a standardized way. This solves both problems in one. The focus lies on the employee who is trained (by the one by one training approach) and during the training it becomes clear why the task has to be done in a particular way.

Because the method repeatedly offers the information and the employee practices the task a few times, the new standard will become “owned”. It is a logical consequence that this takes more time at instructing. Both the new and the experienced employees are given the opportunity to practice the job in the right way as often that they can do the job and also understand it. The instruction itself takes more time, but the ramp-up phase is much shorter and afterward less scrap will be arise.

For more information on TWI or the TWI Institute: www.twi-instituut.com

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