

ERROR-FREE WORKING IN 4 STEPS

USING TWI



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BACKGROUND TWI

Controlled, safe, qualitative and efficient working is of great importance when deploying employees within the organisation. Proper education/training forms the basis for this. Part of this action plan sets out the implementation of TWI within an organisation.

The TWI (Training Within Industry) method has been chosen for the quick, safe and efficient onboarding of employees in the execution various tasks/activities. Applying TWI in **training employee tasks ensures a reduction of 60 to 80% in onboarding time**, i.e. the time needed for the trainer to train. In addition, the risk of making mistakes, after applying TWI, is reduced to less than 5%.

Results:



Reduction in training time by **60 to 80%**



Reduction in errors > 90% (quality & efficiency)



Safety improves (for product and employee)



Effectiveness of **onboarding** period improves

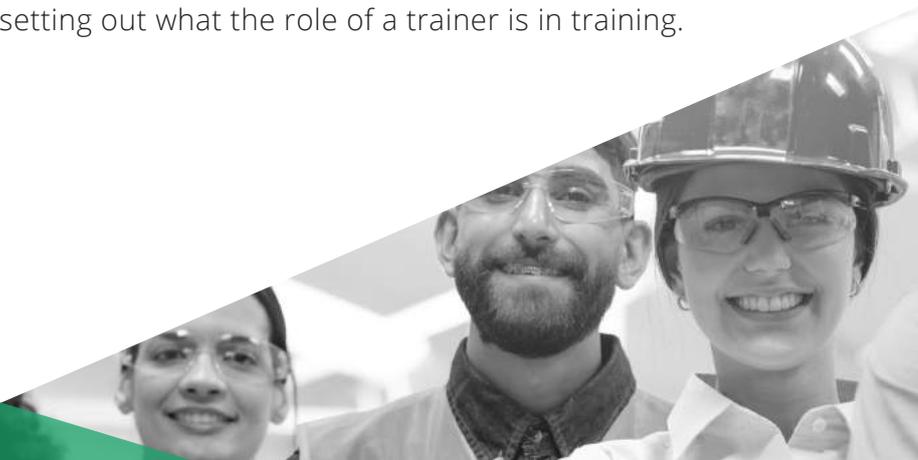


Competencies clear per employee

1.1 TWI work instructions

With this method, the tasks/activities are reduced to TWI work instructions or training standards, in which the activities are built up from the various actions that must be performed, what the critical points are therein and why. This work instruction/TS is then trained in such a way that the work is performed safely, efficiently and without errors.

Learning in such a way that the employee can perform it safely, efficiently and without errors is based on the concept of **3 times demonstrating and 4 times copying**. This is to ensure that, in a short period of time, the employee performs the task several times in one way and that is the right way. The trainer provides unambiguous and standardised training in accordance with an instruction card (TIK), so this employee is really trained the right way. The figure on the next page describes the steps in the correct order, setting out what the role of a trainer is in training.



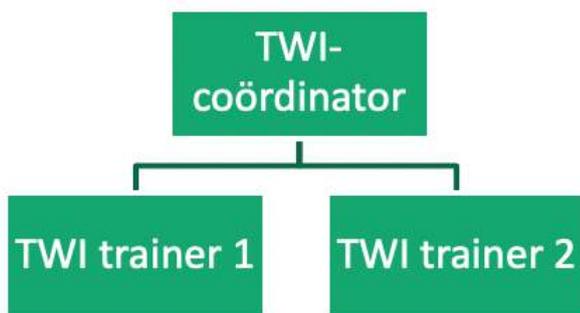
The strength of TWI lies in the provision of standardised and unambiguous training, as mentioned on the previous page. An important aspect is that employees should not be forgotten when implementing an improvement process. This will not be any different with the introduction of TWI, since data must be collected from the shop floor. The flow of information from bottom to top is therefore of paramount importance. This information flow must be continuously monitored through various stakeholders.



PROJECT ORGANISATION

To embed TWI in the organisation as much as possible, a clear TWI implementation plan must be in place in advance. This ensures that the right agreements are made and that the employees in the organisation are prepared to participate in this implementation.

For the roll-out of TWI, a number of roles have been identified within the organisation with a corresponding structure:



In addition, the coordinator is responsible for training the (TWI) trainers. Furthermore, the TWI coordinator monitors whether there are sufficient (proper) trainers. How many trainers are needed varies per organisation. A strategic choice of the right trainers is of great importance therein.

(TWI) trainers are practical staff who draw up TWI training standards, who train employees according to the standard and who are authorised to also check this.

These trainers, together with the TWI coordinator, promote the method. The number of TWI trainers depends on the size of the organisation and the programme to be implemented. In addition, a number of choices will have to be made within the organisation with regard to the specifics of the duties of the TWI trainer. This mainly concerns a grey area between the role of the TWI coordinator and the TWI trainer. Such as scheduling in new employees to train them up and implementing changes in detailed training standards.

2.1 Training of employees

By setting up an organisation it becomes clear that promotion is of great importance. Training new and permanent staff is not always easy. Promotion throughout the organisation is of great importance therein. Employees must be involved in the implementation of the overall process and must start to recognise the advantage of this method. Without the involvement of all stakeholders, it is more difficult to uncover available information.



2.2 Preconditions for the success of TWI

TWI comes with a number of preconditions that must be clearly identified within the project group. During the implementation of TWI, a number of important agreements came to light through TWI Company. The summary below describes a number of preconditions in order for TWI to be successful within the organisation:

1

The trainers and TWI coordinator must have sufficient time available for TWI.

2

Trainers must train according to the correct method, i.e. the TWI method. This is non-negotiable.

3

The trainers and TWI coordinator must know what TWI entails, fully support TWI and communicate this to the rest of the organisation.

4

The TWI coordinator must perform his functions and be able to make adjustments where necessary if the work is not performed according to agreements.

5

Production lines or machines must be working and be available for use during a training, so this training can truly proceed in the right way.

6

A new employee must have basic knowledge that he or she brings to the training and which can be expanded by E-learning.



PLANNING AND LEAD TIME

As explained previously, the implementation of TWI consists of a number of phases. How much time these phases take varies per implementation. These phases are:



The phases are explained in the text below. Appendix 1 contains a table of these phases with estimated lead times.

Phase 0: Preparation

Phase 0 is the TWI preparatory phase. An important aspect is that agreements are made about the specifics of TWI. As part of the efforts, the project organisation is set up and employees must be informed about TWI. In addition, a plan must be set up as to which production lines/departments will be the first to benefit from the TWI roll-out, in other words, which production lines/departments are a strategically smart choice to implement TWI first. For example, the organisation can choose the most extensive production line, the production line that is expected to yield the biggest gains or the production line with the least resistance.

A baseline measurement will provide insight into the as-is situation of the organisation. To keep the entire project organisation informed, weekly or biweekly steering group meetings can be held.

In this phase, it is wise to give an information presentation to those involved. This includes future trainers, operators of the relevant production lines, new employees and relevant/strategically chosen management positions. For example, this presentation should contain a brief explanation about TWI, a workshop with TWI training and a TWI implementation plan. In addition to this information provision, TWI must receive PR through the usual means of communication, such as a newsletters, illuminated displays, dashboards, etc. In addition, you can opt to have this form part of a daily consultation structure.



Stakeholder training and workplace analysis

After the kick-off, we provide introductory training for the main stakeholders in the introduction process. The aim of the stakeholder training is to get all those involved 'indirectly' (often the management layer) onboard the why, how and what of TWI. We notice that in practice, it is important that these people commit to the approach. If you want TWI training to be success, the management layer too must have no doubts whatsoever about the why of the approach.

Supporting departments such as HR (skills matrices), operations (targets and hours) and the technical department (technical support) are also needed to turn the TWI training method into a success. We need about half a day to a day to cover the what, how and why of TWI and to explain what is needed to achieve a proper result.

The next step is to analyse the existing workplaces and processes within your organisation. What is already organised well and what can still be improved? In this phase, the so-called workplace analysis, the TWI trainer, together with the people within the organisation, goes through and describes all steps of the working methods that are the standard at that time. We record improvements and secure them.



Phase 1: Writing

In the first weeks, insight will be provided into the tasks per department. This is worked out per department, by means of the Workplace Analysis. This gives you an approximation of how many tasks will be worked out in a Training Standard. Working out one Training Standard takes about 1 day (without making the training suitable for E-Learning). Draw from sufficient sources to create a Training Standard to ensure that the best method is established. In some cases this means that the different methods must be analysed first before the best method is completely clear. When drawing up training standards, use the documents 'TWI Tool for drawing up training standards' and 'TWI Step-by-step plan for drawing up training standards'.

The trainers are also trained in phase 1. This training takes 2 half days at TWI company, during which trainers are introduced to TWI, writing Training Standards, communication styles and giving feedback. In addition, participants are given half a workday of guidance and complete the training with a practical exam. In this phase, the trainers work closely together with the TWI coordinator. After this training, the TWI trainers can train each other, so that training other people becomes second nature.

Communication styles are of great importance, since a trainer fulfils an exemplary role in relation to permanent and new employees. During a training session, the trainer must be able to put the employee at ease so that the training becomes more pleasant for the new employee.

During this phase, the organisation can plan the arrival new employees, make trainers available and set up a training matrix.

PR is of great importance in this phase, as employees must be made curious about this onboarding method. Examples include the usual means of communication as referred to phase 0.



Phase 2: Training

In this phase, employees can be trained using the TWI method. This is all done by (certified) trainers. A pre-planned plan can help as a guideline for training the right employees (as drawn up in phase 1). When drawing up the Training Standards, a training matrix will be set up at the same time, listing the employees who need to be trained in the various Training Standards. When the employee has been trained to perform a certain task, the status can be changed to Competent/Trained, as the employee is able to perform the task.

Every week/two weeks, the status of the training will be set out during the steering group meeting and adjustments can be made, where necessary. The frequency of the steering group meetings can be reduced when weekly meetings between all project organisations members is no longer needed.

The PR for TWI is as important in this phase as it is in phases 0 and 1. In addition to the methods used in phases 0 and 1, the organisation can opt to use additional means of communication. Employees who have been trained can be involved in the development of TWI, by having them fill in an evaluation form or participate in an evaluation interview, for example. This provides practical insights, while employees start to realise that their input can help in the further implementation. Employees shouldn't get the idea that TWI is a method that is implemented and then forgotten about.



Phase 3: Auditing

TWI must continue to live on within the organisation and (new) employees or trainers must be allowed to grow in their role. In addition to a training matrix and steering group meetings, this requires audits. These audits consist of an Employee Audit and a trainer practical exam. The Employee Audit is necessary to check whether employees are still working according to the correct trained standard or whether there is a better working method than prescribed by the standard. When employees do not work according to the correct standard, it may have consequences for the quality of the end product or the safety of employees. If there is a better working method, the Training Standard will have to be adjusted. The approach further includes a Trainer Audit. This is also used to check whether the TWI trainer is an actual TWI trainer. This audit checks whether the employee is training correctly, i.e. according to the instruction card and/or whether he trains the new employee calmly and clearly.

This creates moments for feedback on the positives and possible improvements, so that the TWI trainer or employee can grow in his task or position. The TWI trainer fulfils a very important task in the organisation, because without him there are no properly trained new employees. This accountability must be rewarded by the organisation through attention and growth opportunities in his role.

PR is also important in this phase, because TWI is more and more becoming part of the daily tasks and activities of the trained employees. This is also the phase in which the effects of TWI become clearly visible.



Phase 4: Roll-out

When the first results of TWI are becoming clear, the further roll-out of TWI across the organisation is optional. An important aspect is that, during the further roll-out, TWI sites in which TWI is already implemented are not forgotten.

The management and embedding of TWI in sites already benefiting from TWI can be made transparent by auditing employees and trainers. This tells you whether employees still work according to the correct methods. Besides auditing, the embedding involves different components depending on the organisation.

Employees must come into constant contact with this method and ultimately, TWI should no longer be viewed as a method, but as part of daily functioning. The roll-out of TWI in other sites can be completed according to the various phases (phases 0 to 3).



WHY TWI

Want to know more about the principles of **Training Within Industry**? Then TWI Company is the right place to be. We provide practice-oriented training programmes which put people first and which guide you in applying the TWI methodology within your organisation. We boast over 12 years of experience and have a proven track-record of more than 180 TWI implementations in the Netherlands and Belgium. Interested? Feel free to visit our website or contact us without any obligation.



Reduction in training time by **60 to 80%**



Reduction in errors > 90% (quality & efficiency)



Safety improves (for product and employee)



Effectiveness of **onboarding** period improves



Competencies clear per employee



Predictability about **duration and lead time of training programme**



Remco Rijsenbrij
Johma Salades

“Thanks to TWI, we can train temporary workers to be skilled operators in just a few weeks. This used to take six months.”



Jan Huisman
C er lia

“Our onboarding times have been reduced from 2 to 4 weeks to 2 to 4 days. We’ve fully implemented TWI in our organisation as a way of working.”



More than 175 implementations since 2011

