

# Training Within Industry (TWI) - Foundations of Job Instruction

written by Lauri Moon | November 29, 2022

Poor training causes problems! Many companies struggle with training that is inconsistent or ineffective. This results in slower production times, increased scrap, lower quality, even decreased employee retention.



Luckily, Training Within Industry (TWI) Job Instruction (JI) is back! TWI JI originated in the U.S. in the 1940s to support the WW2 effort by boosting manufacturing production. It quickly and effectively trained employees, including many entering the workforce for the first time. TWI was an unqualified success:

- 86% of companies increased production by 25%!
- 100% reduced training time by more than 25%!
- 55% reduced scrap by at least 25%!
- 100% reduced grievances by more than 25%!

Join us for this free webinar to learn more about this remarkably effective, yet simple, training method. We will introduce you to:

- The Job Instruction Training Timetable
- The four steps to get ready to instruct
- The four steps of how to instruct
- The Job breakdown sheet, the key tool for effective instruction

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Presented by IMC Business Advisors Dana Gordon and Rick Terry.

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# Two Minutes on Manufacturing Excellence - Building a Great Job Training System Step 2

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In our last article, we talked about step 1 in developing an effective training system. And how critical training has become, as products become, more customized and specialized causing jobs and tasks to become more complex *and* to continually change. Without effective training, unwanted variation, inconsistency, errors, reduced throughputs and other wastes are inevitable.

## Job Breakdown Sheets

As a first step, we described the development of “Job Breakdown Sheets”. A standardized format that describes the *ONE BEST WAY* to perform a job, listing the steps of the job, how each step is done and why it’s important. *Sample Job Breakdown Sheet*

## How to Train - Job Instruction

Now let’s talk about another consideration. That is, how the training itself is performed. Below is a copy of the “job instruction card” that was part of the Training Within Industry (TWI) training system that was used extensively during WWII. And famously adopted and applied by Toyota as the foundation of the game-changing “Toyota Way”. As you’ll see, the card instructs the trainer on how to plan and prepare to train. And then provides a series of steps for training and ensuring capability and qualification.

It needs to be considered that many of today’s manufacturing jobs are significantly more varied, complex and fast-changing than they were when this methodology was initially developed and implemented. But those basic elements of preparation and

instruction can be applied in almost all cases. Consistent and effective instruction methods are critical to an effective training system.



## Training System Assessment

Lastly, let's also mention another important and helpful "tool" for developing an effective training system - a "training system self-assessment". IMC has developed an assessment that any company can easily and quickly complete to get a solid understanding of the current state of the company's training system. The tool assesses 5 areas as follows.

1. Training roles and responsibilities
2. Knowledge and skills of trainers
3. Processes / protocols that support the training system
4. Training tools and methods
5. Training expectations and metrics

In our next article we'll take a closer look at the Training System Self-Assessment. Meanwhile, if you'd like a copy of the assessment, email me at [russl@imcpa.com](mailto:russl@imcpa.com).

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# Two Minutes on Manufacturing Excellence - Building a Great Job Training System Step 1

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In our previous two posts, we discussed the worldwide trend of increasing product customization and specialization and the many implications of that. One being the introduction of more variation into our work processes from up-front selling and quoting through design, purchasing, manufacturing and distribution.

So how do we take advantage of the **desired variation** of specialized products that meet specific customer needs while avoiding the **unwanted variation** that diminishes quality, efficiency, predictability and profitability?

Well, one way to reduce unwanted variation is to ensure that the work itself is being done the *ONE BEST WAY*. And we do that by having a great job training system.

## Where to Start - TWI

*A great job training system starts with clear requirements.*

Clear requirements are getting tougher to define as jobs get more complex and continually change. But answers are available using a decades-old, tried and true system called “Training Within Industry” (TWI). And IMC has adapted TWI to align with today’s more complex jobs and rapid pace of change.

## Defining the *ONE BEST WAY*

TWI Implementation starts with “Job Breakdown Sheets” that provide a consistent format or template for identifying:

- **Steps** of the job
- **How-to** perform the steps
- **Why** the step is important (usually for key steps)

The aim of the Job Breakdown Sheet is to describe the *ONE BEST WAY* for doing a job as simply and briefly as possible while ensuring consistency of results and outputs. And of course, the people developing the Job Breakdown Sheets must know the jobs well.

Job Breakdown Sheet templates are available from many sources. We at IMC often use a format developed by *Systems 2 Win*.

## **Up Next**

In our next article we'll talk about next steps for implementing TWI and introduce IMC's recently developed "Training System Self-Assessment" that's available to all area manufacturers.