

## Bringing Back Training Within Industry to U.S. Manufacturing and Business

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In 1997 the book *Gemba Kaizen* was published. Its author, Masaaki Imai, unknowingly set into motion the revival of TWI back into U.S. industry. I saw Imai speak at an American Society for Quality (ASQ) meeting in the Fall of 1997 in Milwaukee, Wisconsin and purchased *Gemba Kaizen* to read.

*Gemba Kaizen* is a timeless book of learning about what daily improvement is and how it impacts the lean enterprise. My copy is marked up with notes and a yellow highlighter. But what struck me the most was Imai's brief discussion on TWI.

I had been implementing one-piece flow and standard work into our manufacturing operations with a very aggressive group of engineers and operation managers. True 1x1 flow which impacted everything – tooling, layout, machine and fixture design, material flow, operator flow, and everything else. It was quite a feat. We made very positive and significant progress. But even though we developed very forward flow; that is, every cell had actual one-piece flow, and very well choreographed standard work for the operators, we still were not able to hit the consistent output per takt time that I had witnessed in Japan at Toyota's first-tier suppliers.

I knew something was missing. I had worked for Toyota's second largest supplier so I know there had to be *something* Toyota and its group companies were using to achieve their success with standard work, but I frustratingly did not know what that *something* was.

This was why Imai's discussion of TWI caught my unconscious mind. I began a year long process of research to find out what this TWI-thing was. What I would discover at the end of that search absolutely stunned me.

After I was greatly intrigued with Masaaki Imai's discussion of TWI in his book, *Gemba Kaizen*, I read the chapter written by John Shook in Jeff Liker's book, *Becoming Lean*, in which John also mentioned TWI. Upon reading that, I *had* to find out "what some WWII program had to do with the Toyota Production System!" Thus followed my year-long search to answer this question. This search led me to call a variety of government departments in Washington D.C., make trips to the Milwaukee Public Library, and then more calls to universities.

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After this year of searching I eventually located and received a copy of the TWI Final Report from 1945. I have to admit that I wasn't too excited to read a nearly 300 page government report, so on my bookshelf it went. For several months it sat there – but constantly gnawed on me to read it since I had spent a year working on finding it. So I pulled it down to read.

I was stunned by what I read. From these pages written in 1945 I was reading about many of the lessons and methods I had learned while working as a manufacturing engineer for Toyota's second largest supplier, and what I had learned from the *Shingijutsu* consultants during the original *5 Days and 1 Night* kaizen workshops with the Danaher Corporation. *I realized I had found the missing piece.*

The 1945 Report also gave the titles of the actual training manuals used so now I could receive these original manuals firsthand through interlibrary loan. And that is exactly what I did. Once the first manual, Job Methods, arrived at my local library, I was shocked by what I discovered as I read through it.

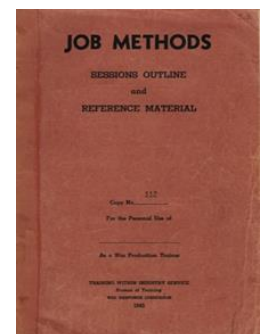
When I arrived at my local library to pick up the original Job Methods training manual I had ordered, I immediately sat down at the library and began reading through it. My 'stunned' state grew! In this 1943 WWII training manual I was reading *the very process of kaizen*, but in significantly more detail than I had been taught working for a Toyota tier-one supplier or even in the training I had received from the *Shingijutsu*. We realize today that kaizen is actually the process of Job Methods, and that Standard Work is really applying Job Methods and Job Instruction within the boundaries of Job Relations.

I was so shocked by my (re)discovery that I was looking over my shoulder thinking someone had to be spying on me! I could not believe that this foundation to the lean enterprise was from the 1940s war effort. Not only had I found the "missing piece" that had haunted me for many years, but I had found it in great detail.

Since that time over a decade ago, many organizations have implemented TWI as a foundation to their lean business model. They are not only reaping the benefit of improved kaizen, standard work, training, stability and sustainability-- but also the discovery of developing their people into daily problem-solvers. They are making and keeping daily improvements in the operations and organization. This ability is a critical factor in changing your organization's culture into a learning organization--a culture which will propel your business forward and make it a strong and growing competitor. And your people will enjoy their work, overcoming the challenges they face daily. *Your organization can begin the process of becoming a real lean enterprise.*



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