Knowledge Transfer with JI across Disparate Global Businesses

Thomas Bouraoui – Tekni-Plex, Inc.

Introduction:

Professional
- B.S. Packaging Science (MSU)
- MBA Marketing & Intnt’l Bus.
- Alaskan Fisheries (NMFS)
- Packaging Development with Kraft/General Foods & Sara Lee
- NPD & Project Mgmt with Tetra Pak
- LSSMBB
- Quality/CI with Global Converters

Personal
- Raised in Belgium, Switzerland, Canada & U.S.
- Outdoor travels in 80+ countries
- Two sons in college
- Photography, Culinary Arts

Thomas Bouraoui
Tekni-Plex
Global leader in advanced plastic and rubber technology

Focused on Medical, Pharmaceutical, Personal Care, Household & Industrial, Food & Beverage

North America: 24 Locations
Central and South America: 2 Locations
Europe: 8 Locations
Asia-Pacific: 3 Locations

Medical, Pharmaceutical, & Healthcare Products

Business units

Products
Blister packaging films and foils, Thermoformable films for medical device trays
Closure liners and sealing gaskets
Pharma-grade dispensing components
Medical Tubing
Medical and Specialty compounds
Personal Care / Household & Industrial / Food & Bev.

Business units

- **ACTION TECHNOLOGY**
- **TRISEAL**
- **COLORITE**
- **DOLCO PACKAGING**

Products

- Specialized dispensing components and tubing
- Closure liners and sealing gaskets
- Specialty compounds
- Egg cartons, till trays and food service

**Agenda:**
1. My discovery of JI
2. Integrating JI into various companies
3. Application of JI to prevailing challenges
4. Global Standardization & Alignment
5. Lessons learned and takeaways
1. My discovery of TWI Job Instruction

Stumbling upon TWI in 2007....

I bought *Toyota Talent* at a Chicago O’Hare bookstore (flight delay)

- 4 months later, applied JI to attack extrusion losses
- 2 tasks standardized across 3 shifts saved ~$300k/yr... Wow!!!
TWI seemed to work….how did it compare to other options?

- Researched training methods (libraries, internet, AMA bookstore, etc...)

- No other methods seemed as simple, clear, compelling and universally applicable

  eureka!

2. Integrating JI into various companies
Company 1: JI earns a seat at the table

- 2 day workshop for Black Belts & HR:
  - JI adopted by Ops;
  - HR declares us “tied at the hip”

- Drove adoption of JI within CI Framework

- “Handed off” before leaving the company

The fire was lit

What aspects of the workshop were the most valuable?
1. Excellent method
2. Very useful documents / forms
3. This is one of the best organized, presented, and useful training session I have been to in 24 yrs with the company - way to go thank you!
4. Connection of key points to waste
Company 2

Similar starting points:

• A functional role in Operational Excellence or Quality
• Businesses focused in material processing and converting
• Global networks of plants
• Lack of awareness of TWI

20 Keys Framework ...

... Job Instruction was a natural fit...
Prevailing Challenges ...

**Situation:**
Print quality was not hitting customer program targets. Scores differed greatly between appraisers.

**Countermeasure:**
A breakdown sheet was developed for each of four different print quality evaluations.

**Outcome:**
Variation between appraisers diminished greatly. Problems were addressed. The site was recognized as a benchmark for print quality.

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**Situation:**
Mold on end-boards of overseas pallets of packaging materials

**Countermeasure:**
Customer containment instructions captured in two JBS.

**Outcome:**
*Very effective containment*, improved customers process, maintained customer trust, protected public health.
**New CEO …new program…**

Transitioned employees from 20 Keys to Milliken Performance System

- **Constancy of Purpose** is not provided, help people connect the dots!

Then another leadership transition to the Danaher Business System

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**Company 3:**

**Situation:**  
Computerized training imparts critical process training. Very limited cross-training in how to use system, thus it had fallen out of favor and the training room became cluttered and unusable.

**Countermeasure:**  
Created JBS on how to use the training system. 5S applied to the room.

**Outcome:**  
Critical training system reinvigorated and documented for posterity.
...meanwhile, gained exposure to other Practitioners

- 10hr JI Workshop - AME - Chicago April, 2009
- TWI Summit- Mason, Ohio May, 2009
- 10 hr JI Workshop - Wisconsin Aug, 2009
- Savannah TWI Summit 2013
  - Job Relations 10 hr. Workshop
- San Diego - 40 Hr. JR TTT Feb. 2014
- San Diego - 40 Hr. JI TTT Feb. 2016
- Venice Summit - 2018
- Austin Summit - 2020

The perennial situations......

- Need to develop Leader awareness (TWI link to business objectives)
- Opportunities presented themselves (prevailing challenges)
- Small wins were achieved
- More Wins open minds and a willingness to try...

... then the real challenges begin...
**Company 4  Manufacturing Engineering Group is Established**

Everyone is recruited from the outside
- VP to lead the team starts Q4 2014
- Global Directors:
  - Director of Safety
  - Director Manufacturing Engineering
  - Director of Capital Projects
  - Director of Quality starts Q1 2015

**Challenges within new Manufacturing Group:**
- earn the favor & respect of each Business
- develop our identity & prove our value
- contribute to operations & business success

Note:  few, if any, were exposed to TWI

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**First Prevailing Challenge …**

**Situation:**
High turnover in entry level Packer position and difficulty getting new employees up to productivity.

**Countermeasure:**
JBS created for all key skills/tasks. Implemented JI training.

**Outcome:**
Substantial reductions in training time and improvements in training effectiveness. Easier to share work standards between operators, lines, shifts, and facilities.
First Prevailing Challenge …

Outcome:
Substantial improvements in training effectiveness and reductions in training time.
Easier to share work standards between operators, lines, shifts, and facilities.

VP Manufacturing & Engineering perspective….

- TWI & MOS: Come together to compliment each system.
- TWI provides the training and tools to establish standard work.
- Hands on training & practices.
- Standardized job instruction.
- Global standards and practices
  - India
  - China
  - Northern Ireland
  - USA
  - Costa Rica
Human Resources perspective....

**TWI supports:**
- Onboarding, retention
- Workforce development and certifications
- Cross-training and scalability
- A culture of accountability
- Performance management

Chief Operations Officer perspective....

**TWI supports:**
- Process stabilization, quality, and predictability
- Transfer of knowledge and processes
- Implementation of new technology & equipment

**TWI supports:**
- Growth and expansion
- Integration of acquisitions
- Global standardization across language & cultural platforms
3. Application of JI continues on a steady stream of Prevailing Challenges

Reinvigorating Lab / Quality Test Methods

Once versed in JI, unclear SOPs are no longer tolerable.

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Controlled documents must evolve with the workplace

Support updates to existing Controlled Documents systems.

Hit or miss training by OEMs

Initially:
• Gather all together and tell them about the equipment. Have them sign a group training sheet.

More effective:
• OEM works closely with someone who drafts breakdown sheets.
• Use breakdown sheets as basis for group overview training w OEM.
• Practice and refine tasks in-house
• After OEM departs, sign individuals off as they are trained on each task 1 : 1
Meeting regulatory requirements

Example: Process Safety Management with Hazardous Gases

Considerations:
• OSHA requirements
• EPA requirements

The Operation Overview helps with equipment transfers

• Each step in the overview refers to a separate JBS.
• Two of the seven JBSs are shown in this example.
Applications even outside of work...

The key stuff...easily accessible...

- A clutter free cheat sheet with all the key points...a big plus for an exhausted person facing high stakes
If task mastery were a mountain...

...then TWI is a certified Sherpa...

4. Global Standardization & Alignment
Vision: Global Skills Training and Knowledge Sharing

40 JI Workshops delivered

...to standardize and align globally

Common JI Template across all business groups

- Same color scheme (all businesses)
- Headers customized with BU logo
- Fields adjusted for document control
The importance of documenting job content

- Structure to set expectations and hold people accountable
- Aligns HR & Operations programs to common elements
- Standardizes skills that are primary part of job (and can combine with other skills and accumulated know-how in order to master the complete operation)

Same JBS, different language

Standardize tasks across multiple languages to help achieve consistent & repeatable operations across global locations.
Provide global delivery of JI workshops

- TWI Institute can support global needs:
  - Materials in many key languages (Chinese, Spanish, French, German, Italian, etc...)
  - Available network of partners and trainers in 25 countries, and continuing to grow.

- As Tekni-Plex continues to acquire and grow, TWI will continue to be introduced to the new locations.

Dream it, plan it, then get after it

5. Lessons Learned and Takeaways

Align ... TWI efforts must support business goals

Strategies are linked to initiatives. And initiatives are linked to:
- performance measures and action plans
- personal goals and Performance Appraisals
Keys to TWI Rollout and Sustainment

- Identify the gaps
- Resolve them
- Grit and perseverance

Trainer / Coach selection

- Identifying capable trainers and coaches .... critical
- Invest in development
- Must be able to draft good JBS
Systematically identify critical tasks...targets for instruction

- Core job tasks; required for productivity
- Tasks that result in safety, quality, cost, or productivity losses
- Tasks where operators make mistakes or don't know “WHY”

Immediately take action on improvement needs....

“If the person hasn’t learned, the instructor hasn’t taught”

- Peter and Bosco: locate/mount extinguishers to support EX22
- need path/steps to metering shed
- develop method for cleaning static neutralizing bars
- need better lighting near machine
- need to make it easy to visibly confirm that the screws are rotating (too dark to see thru grating)
- affix brush near POU for Static eliminator (IQ Power Static Neutralizing Bar ---- Speed-T) RCS Associates is Simco distributor in Hopkins, S.C. 803-240-3533
- label low pressure pump panel
- label low pressure gas valve
- label before/after gauges

... If you don’t fix it now, you are not likely to go back and fix it later...
Practice skills immediately after the workshop

100% have agreed....
- More effective training
- Easier for the Instructor
- Easier for the Learner

Create opportunities for development

Job Instruction helps develop and recognize people. It can create a mutually beneficial growth path for motivated implementers. Respect for people.
A hard truth (and opportunity)...

Training situation in most companies today

- Employees learn via the “buddy” system
- Multiple and sometimes competing ways of doing the job exist and create lack of standardization
- Lot’s of documents called work instructions exist (e.g. QS 9000 or ISO 9000) but are usually not really used
- People are often put on new jobs on short notice due to absenteeism, vacation, or other reasons
- Employees mainly learn on the job with little structured supervision or support

Despite advances in technology the basic situation and methods for instruction on the shop floor for the majority of production jobs has not changed for decades...
As long as Quality matters, JI has a role...

**Inputs**
- Machine
- Material
- Man/Woman
- Methods

**Outcomes**
- Quality
- Cost
- Productivity
- Delivery time
- Safety / Enviro
- Morale

Principles remain unchanged

**CFO asks CEO**

“What happens if we invest in developing our people and they leave us?

**CEO**

“What happens if we don’t, and they stay?
Thank you!

Questions

Thank you!