

Lessons Learned from Industry: Applying Job Instruction in Residency Education

The Christ Hospital/University of Cincinnati Family Medicine Residency

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ADFM Webinar

10 November, 2017

Objectives

- Describe Job Instruction Methodology from Training Within Industry and how it has been used for EMR Training to help restore joy in practice.
- Differentiate physician led EMR Training from traditional IT led EMR training.
- Explain how the Job Instruction Method is a powerful tool for Process Improvement.

Speaker: Chris Bernheisel (Program Director)

“Simple can be harder than complex: You have to work hard to get your thinking clean to make it simple. But it’s worth it in the end because once you get there, you can move mountains.”

Steve Jobs

Speaker: Chris Bernheisel (Program Director)



- We saw the chaos in the healthcare
- burnout, frustration,
- treating computers not patients,
- lack of connection with patients, loss of joy in practice

Speaker: Mike Putnam (PGY2)



Speaker: Lou Flaspohler (Faculty, Project Lead)

What was the solution?



Speaker: Lou Flaspohler (Faculty, Project Lead)

Training within Industry (TWI)

TWI created Job Instruction (JI) as a way to standardize training of standardized work.

<p>HOW TO GET READY TO INSTRUCT</p> <hr/> <p>Have a Time Table— how much skill you expect him to have, by what date.</p> <p>Break Down the Job— list important steps. pick out the key points. (Safety is always a key point.)</p> <p>Have Everything Ready— the right equipment, materials, and supplies.</p> <p>Have the Workplace Properly Arranged— just as the worker will be expected to keep it.</p> <hr/> <p>Job Instruction Training</p> <p>TRAINING WITHIN INDUSTRY Bureau of Training War Manpower Commission</p> <hr/> <p>KEEP THIS CARD HANDY</p> <p>GPO 16-35140-1</p> <p>Front of the Job Instruction Card</p>	<p>HOW TO INSTRUCT</p> <p>Step 1—Prepare the Worker Put him at ease. State the job and find out what he already knows about it. Get him interested in learning job. Place in correct position.</p> <p>Step 2—Present the Operation Tell, show, and illustrate one IMPORTANT STEP at a time. Stress each KEY POINT. Instruct clearly, completely, and patiently, but no more than he can master.</p> <p>Step 3—Try Out Performance Have him do the job—correct errors. Have him explain each KEY POINT to you as he does the job again. Make sure he understands. Continue until YOU know HE knows.</p> <p>Step 4—Follow Up Put him on his own. Designate to whom he goes for help. Check frequently. Encourage questions. Taper off extra coaching and close follow-up.</p> <p>16-35140-1</p> <p>If Worker Hasn't Learned, the Instructor Hasn't Taught</p> <p>Back of the Job Instruction Card</p>
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Speaker: Lou Flaspohler (Faculty, Project Lead)

A Lesson from History

-Chaos in factories, onboarding of untrained workers from novice to mastery, ppl were not able to contribute to the war effort without the right skills. Right attitude, inadequate skills. Returning masters from novice back to master.



Making the Connections

- Chaos then, chaos now
- EMR interfering with mission: patient care and education
- If they can master the EMR, they can get back to the mission.



Speaker: Eleanor Glass (Faculty)

We needed a scaffolding

- Can't do quality improvement if everyone is doing it differently
 - scaffolding is standardization



Speaker: Eleanor Glass (Faculty)

What was our connection

- Chaos is chaos, in WWII or in today's healthcare
- Ppl unable to achieve their sense of purpose due to lack of basic training, feel they are unable to contribute to common good. Right attitude, inadequate skills. If they can master the EMR, they can get back to the mission. Returning masters who have been novices again, back to mastery.

We needed a scaffolding

We wanted a scaffolding to hold up the various QI projects

We can't do quality improvement if everyone is doing it differently

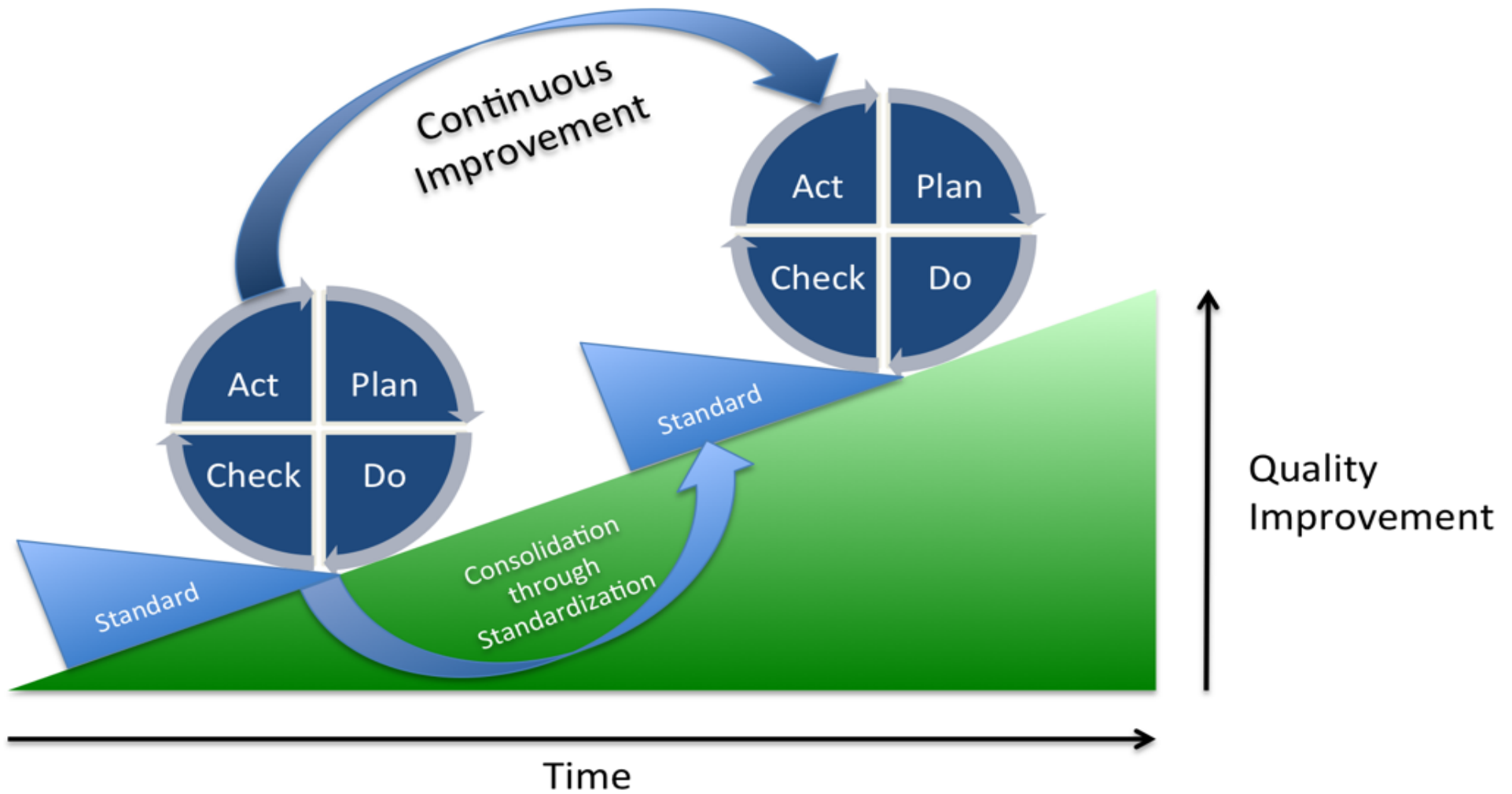
-that scaffolding is standardization

Our first JBS's, goal was to standardize our epic training. Physician led training.

What's the proof?

The lens grinders, were able to take their training down from several years to several months

Continuous Improvement through Microchanges in Standard Work



Speaker: Eleanor Glass (Faculty)

Traditional EMR Training

- IT Led: 4 hours
 - Relevance...?
- Learning on the job
 - At best, training to 25%, with rest “figure it out”



Speaker: Chris Bernheisel (Program Director)

Our Steps

1. Job Instruction Training

- 12 Trained in Job Instruction Method (1/2015): 2 weeks of training, total of 20 hours
- Entire Ecosystem: Leaders, front line, IT, and key influencers (physician heavy)
- Training: how to train, how to standardize, how to breakdown a job

Speaker: Chris Bernheisel (Program Director)

Our Steps

2. Chose area of focus

- Identified EMR as the major stumbling block
- Identified June Intern Orientation as the area of intense focus (5 months away)



Speaker: Chris Bernheisel (Program Director)

Our Steps

3. Formation of Core Small Group

- 8-10 core group including: faculty, IT support, residents, front office staff
- Meet weekly for 1 hour to maintain momentum
- Interdisciplinary: Entire Ecosystem

Speaker: Chris Bernheisel (Program Director)

Our Steps

4. Develop Job Breakdown Sheets

- **Identified topics**
 - Avoided fire storms
 - Pain points that everyone would appreciate to be standardized
- **Broke down steps for process**
 - Watching the expert
 - Using collective knowledge in creating consensus - discover better ways of doing things, discover how to improve our process
- **Concise, effective communication**
- **Requires standard set-ups**

Speaker: Lou Flaspohler (Faculty, Project Lead)

JOB BREAKDOWN SHEET

Operation: Completing the LOS screen for an outpatient encounter

Parts:

Tools & Materials: Billing sheet for reference

Common Key Points: Never click close encounter. Residents never close encounters.

Notes for Step 1 Review of short cut keys.
(Prepare learner):

ADVANCING STEPS	KEY POINTS	REASONS
A logical segment of the operation when something happens to advance the work.	Anything in a step that might— 1. Make or break the job 2. Injure the worker 3. Make the work easier to do, i.e. “knack”, “trick”, special timing, bit of special info	Reasons for the key points
WHAT	HOW	WHY
1. Enter LOS	1. Use abbreviations or speed buttons	1. Must bill appropriately 2. Faster
2. Click LOS-Dx Assoc	1. Enter billing level 2. Associate with diagnosis 3. Blue diamond next to the principal diagnosis	1. Must bill appropriately 2. complete all billing on one screen 3. Required for billing
3. Enter modifier	1. GC if seen (regardless of level) 2. GE if not seen	1. Indicates seen by attending 2. Indicates not seen by attending.

Speaker: Mike Putnam (PGY2)

Original View

Level of Service & Follow-up

WTM AWW-Init AWW-Sub

LOS:

Modifiers: 25 26 RT LT

Additional E/M codes: [Click to add](#)

Auth prov:

Disposition

Return in: Days Weeks
Months Years

4 Weeks 3 Months 6 Months 1 Year

Return on: Approximately

PRN:

For:

Check-out note:

Follow-up:

Instructions:

Restore Close

Standard View

Level of Service & Follow-up

New Lvl 3 New Lvl 4 Est Lvl 2 Est Lvl 3 **Est Lvl 4**

Est Lvl 5 NWCC<1 EWCC<1 EWCC 1-4 NWCC 1-4

NWCC 5-11 EWCC 5-11 NWCC 12... EWCC 12... EWell18-39

EWell40-64 EWell65+ procedure

Init PNC Subs PNC

LOS: **PR OFFICE OUTPATIENT VISIT LEVEL 4 [99214]**

Modifiers: **GC** +

Additional E/M codes: [Click to add](#)

Auth prov: BERNHEISEL, CHRISTOPHER R.

Disposition

Return in: (from 11/3/2017) 2 Days **Weeks**
Months Years

2 Weeks 6 Weeks 1 Month 2 Months

3 Months 6 Months 1 Year

Return on: 11/17/2017 Approximately

PRN:

For: wrist pain; f/u gabapentin

physical F/u Mood DM visit 30 Min Visit

Controlled Sub mgmt 30 min, Pap Next Well Child Check

Routine OB, 30 min

Check-out note:

Speaker: Mike Putnam (PGY2)

Our Steps

5. Develop Training Schedule

- Day 1: Standard set-up
- 20 Hours of Training
- Physician Led
- Training Exercises

Orientation JBS Breakdown

Topic	Lead	Date to Present
Standard Epic Language (Asynchronous Quiz)	Betsy Lazaron (IT support for quiz Bernheisel)	
Standard Epic Set-up	Betsy Lazaron/Chris Bernheisel/Sean Boyle (Inpatient)	6/17 2-5
Login	Lou Flaspohler	6/17 2-5
Problem List Management (PMH)	Hilja Ruegg (Nick Wittry: General and DM)	6/25 2-5
Chart Review	Chris Bernheisel	Epic Session 3: June 19 7-8 am
Results Review	Chris Bernheisel	Epic Session 3: June 19 7-8 am
Entering/Updating Past Surgical History	Lou Flaspohler	6/18
Entering/Updating Family History	Lou Flaspohler	6/18
Entering/Updating Social History	Lou Flaspohler	6/18
Entering/Updating Allergies	Lou Flaspohler	6/18
Outside Records	Chris Bernheisel	Epic Session 3: June 19 7-8 am
LOS Screen	Eleanor Glass	Epic Session 4: June 19 1-3:30

Speaker: Chris Bernheisel (Program Director)

- Watching the expert

Our steps to improvement

The steps

- We went through 2 weeks of training,
- Identify key stakeholders - leaders, non-leader influencers, potential skeptics who will be the biggest champions
- A small key group met weekly to keep momentum
- identifying the rock - realizing that standardization may be a sticking point for some, we chose to start with non controversial tasks that everyone would appreciate having standardized. For example, our first year we did Orders, Billing, Chart Reviews, Ordering immunizations, data entry like past medical history and family history.
- watching the expert

Development of the JBS

- Watching the expert
- creating the JBS - show example
- coming to consensus - discover better ways of doing things, discover how to improve our process
- we spent a lot of time trying to find the most concise, effective method to communicate

Skill Building: LOS Skill Building Exercises

We will do these steps in the playground.

Instructions:

1. Select the Windows Icon on the bottom left
 2. Select "All Programs"
 3. Select the folder labeled: "Other Applications"
 4. Scroll to the FOLDER called "Epic" and open it
 5. Open the Training Folder
 6. Open "Epic Hyperspace-CL414"
 7. Your login name is the same but the password is Password1 (the P needs to be capital)
 1. Note: Shelby use christophe.bernheise for login (same password)
 8. Context: TCHMA FM Auburn FM
 9. Open the schedule and look at 6/19/17
 10. Select the "TCHMA MT Auburn FM" list (folder under the calendar)
 11. Assigned patients:
 1. Shelby: Use first Vegetable patient (10523432).
 2. Chris: Second Vegetable (last three MRN: 493)
 3. Suzanne: third Vegetable (Last three MRN: 585)
 4. Christian: Fourth vegetable (MRN: 593)
 5. Sarah: Fifth Vegetable (MRN: 598)
 6. Michelle: Sixth Vegetable (599)
 7. Eric: Seventh Vegetable (617)
 12. After each encounter, please close the encounter and advance by 1 week on the schedule and choose the same patient. Note, it will probably tell you that you will need to enter CC etc: click on each item and complete task to close. Also note, preceptors are typically the only ones to close encounters because we are required to be the last person to touch the chart secondary to billing.
-
1. You are approached by your colleague who can not remember how to do LOS. They ask you you to enter a level 3 new patient visit for the diagnosis of HTN, Dr. Ruegg was the preceptor, the patient was not seen and the colleague is a 2 year resident, and they want to see the patient back in 3 months.

 2. Another colleague come up to you and needs help for the LOS section. They are a PGY3. New patient level 4 for DM II (no complications, not on insulin) and HTN. Preceptor was Ron Reynolds. They want to see the patient back in 6 months.

 3. A 45 y/o female PMH DM II, CHF presents as a new patient to be established. She is doing well without any new complaints. Her DM II has been well controlled, diagnosed 12 years

Lessons Learned

- EMR set up - must have great practice cases in a fully built practice environment
- Scribing
- Time is important, “need to know, vs neat to know.”
Can’t overwhelm the learner
- We continue to overestimate our own skills.
- Journey of continuous improvement

Speaker: Eleanor Glass (Faculty)

Next steps

- propagate the standardization
 - we realized we needed standard set up for Epic.
- standard yearly calendar for finding the rocks, and creating new teaching

Implementation Since

- Epic efficiency score: top 7 residents were interns
- Increase by nearly 1 more patient per session for interns during first month



Speaker: Mike Putnam (PGY2)

“Simple can be harder than complex: You have to work hard to get your thinking clean to make it simple. But it’s worth it in the end because once you get there, you can move mountains.”

Steve Jobs

Contact information

We are happy to help!

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Michael Putnam: michael.putnam@thechristhospital.com

With special thanks to Rod Baker & Don Dinero, who trained the trainers



Speaker: Chris Bernheisel (Program Director)

Why start now?

- Focus on EMR training during orientation
- Allow residents to spend more time on clinical decision making, less time on learning EMR basics
- Early data from our project:
 - Interns who have received more EMR training through TWI are finishing tasks faster & more efficiently than senior residents.

I-PASS training using TWI

- Small group work
- What worked and what didn't?
- How could this work in your setting?

Development of the JBS

JOB BREAKDOWN SHEET

Operation:

Parts:

Tools & Materials:

Common Key Points:

Notes for Step 1 (Prepare learner):	
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ADVANCING STEPS	KEY POINTS	REASONS
A logical segment of the operation when something happens to advance the work.	Anything in a step that might— 1. Make or break the job 2. Injure the worker 3. Make the work easier to do, i.e. "knack", "trick", special timing, bit of special info	Reasons for the key points
WHAT	HOW	WHY
1.	1.	1.
2.	1.	1.
3.	1.	1.

JBS – the **expert** & the **observer**

- Why an expert and an observer?

Stages of performance mastery

--unconscious incompetence

--conscious incompetence

--conscious competence (observer)

--unconscious competence (expert)

Experts can't always teach, as they have achieved a level of mastery that makes them unaware of the key points to their performance

Roadmap

- True Standardization is liberating.
- Blessed Unrest → Evolutionary Organizations
- Engagement
 - Spectrum
 - Health
 - Peaks of intensity
- TWI History
- They paved paradise-Freedom isn't free.


Blessed Unrest

There is a vitality, a life force, a quickening that is translated through you into action, and there is only one of you in all time. This expression is unique, and if you block it, it will never exist through any other medium; and be lost. The world will not have it.

It is not your business to determine how good it is, not how it compares with other expression. It is your business to keep it yours clearly and directly, to keep the channel open. You have to keep open and aware directly to the urges that motivate you. Keep the channel open.

No artist is pleased. There is no satisfaction whatever at any time. There is only a queer, divine dissatisfaction, a blessed unrest that keeps us marching and makes us more alive than the others.

Martha Graham

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Organizational Blessed Unrest



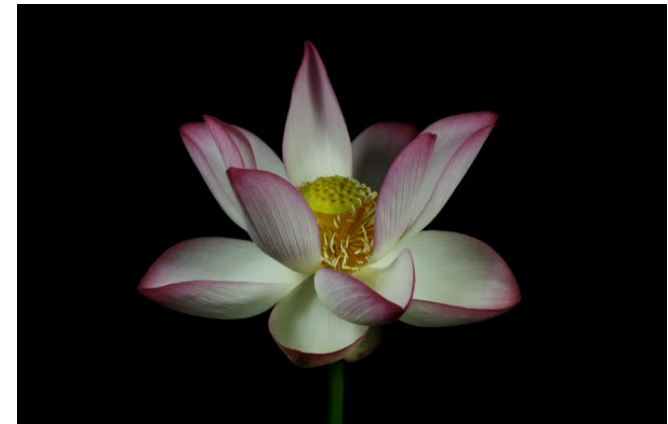
Engagement

- Spectrum: Health and Wealth

Disengaged

Profit Driven

Purpose Driven



- Individual and Organizational

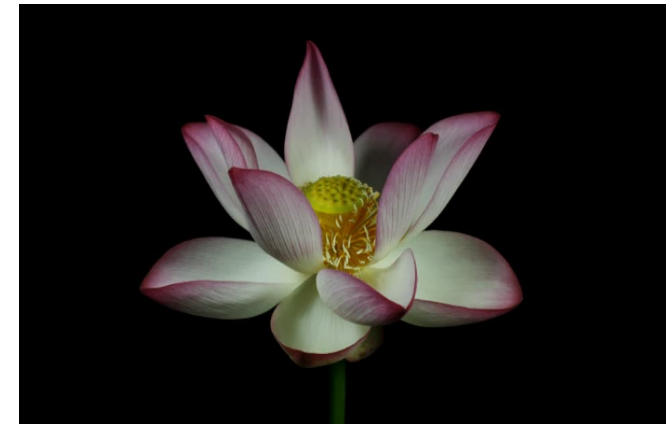
Engagement

- Spectrum: Peaks of intensity

Disengaged

Profit Driven

Purpose Driven



Desperation vs. Inspiration

Engagement

Peaks of Intensity → Desperation vs. Inspiration

- ..all experience hath shewn that mankind are more disposed to suffer, while evils are sufferable than to right themselves by abolishing the forms to which they are accustomed. But when a long train of abuses and usurpations... Thomas Jefferson
- We choose to go to the moon and do other things, not because they are easy but because they are hard. JFK
- U.S *WW II*
- Japan post WW II
 - Japan 1960s.

Freedom isn't Free.



They paved paradise and put up a
parkin lot With a pink hotel, a
boutique, and a swingin' hot spot
Don't it always seem to go That you
don't know what you got till it's gone

— *Joni Mitchell* —

AZ QUOTES

Take Home Messages

- **JI a Foundation for Evolutionary Micro Changes.**

Icing on the cake

- **JI is standardization of how to standardize.**
- **True standardization is liberating.**
- **Evolutionary Organizations**

Creating the JBS for the Underwriter's knot

for those who like to see how the sausage is made

<http://www.youtube.com/watch?v=UgOzuJsAlgc&sns=em>

Objectives

- Compare and contrast process improvement in evolutionary organizations with standard work as anchoring vs current system
- List the steps and characteristics of effective learning sessions (i.e. key points in JI)
- Be familiar with the process of creating a Job Breakdown Sheet

Quality Improvement & Training Within Industry (TWI)

What is Quality Improvement?

Take Home Messages

- **Jl: a Foundation for Evolutionary Micro Changes.**

Icing on the cake

- Jl is standardization of how to standardize.
- True standardization is liberating.
- Evolutionary Organizations

Summation

- Process improvement in evolutionary organizations using standard work → how this differs from usual training
- Using Job Instruction (JI) for effective learning sessions
- Appreciate the process of creating a Job Breakdown Sheet (JBS)

Dissemination and advanced TWI training coming soon!