

DESIGNING AROUND IDENTIFICATION OF NEEDED STAFF COMPETENCIES

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2ND WEST COAST WATER/WASTEWATER UTILITIES
WORKSHOP ON WORKFORCE DEVELOPMENT

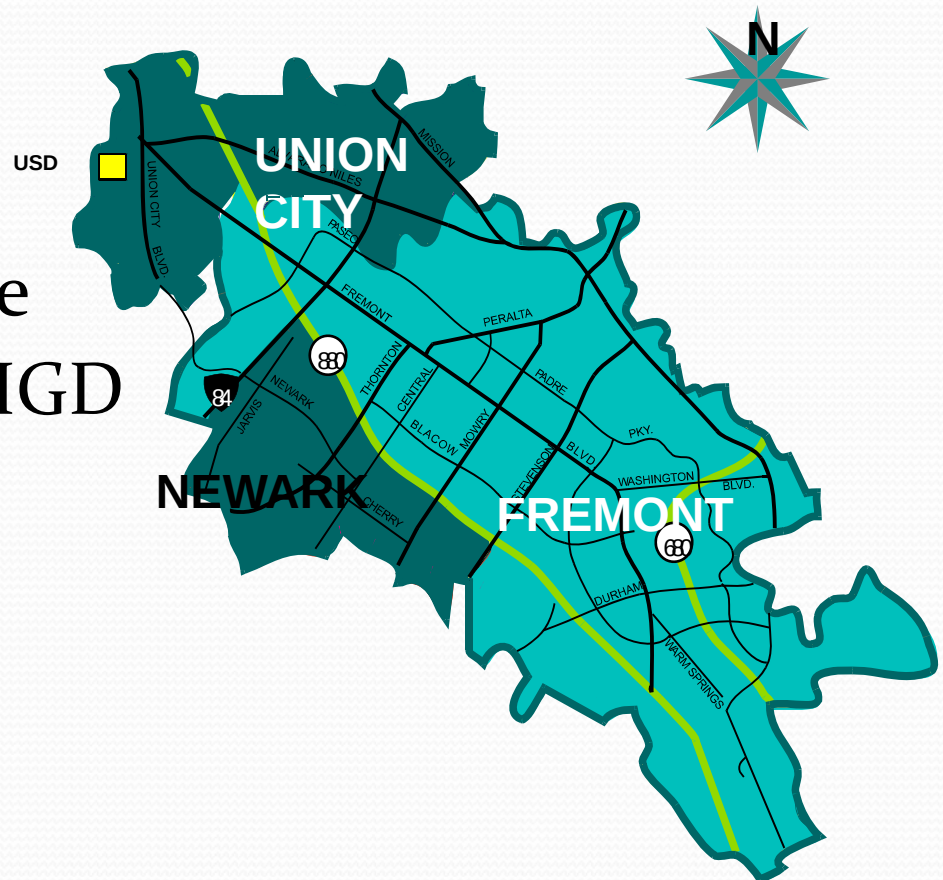


OBJECTIVES

- Union Sanitary District Overview
- What Was The Need / Resources
- Training System Focus
- Training System
 - Training Modules (JCR and SA)
 - Assessments
 - Train The Trainer (SME to Trainer/Learning Facilitator)
- Make connections to Long Term Staffing/Strategic Planning

WHO ARE WE?

- Special District to provide Waste Water Treatment
- Founded 1918
- Service area
- About 325,00 people
- About 762 miles of pipe
- Average dry flow 27.5MGD
- 132 employees





What Was The Need For A System

- **No Training System or Program Existed**
- OSHA/CAL-OSHA, Other Federal, State, Local regulations - **Compliance**
- Need for a skilled workforce
 - No degree to some college
 - Yet, some must be certified
 - Nobody is providing our system specific training
- 15% of workforce indicates they will retire within the next 5 years
- 25% of the workforce could retire today



Resources Applied

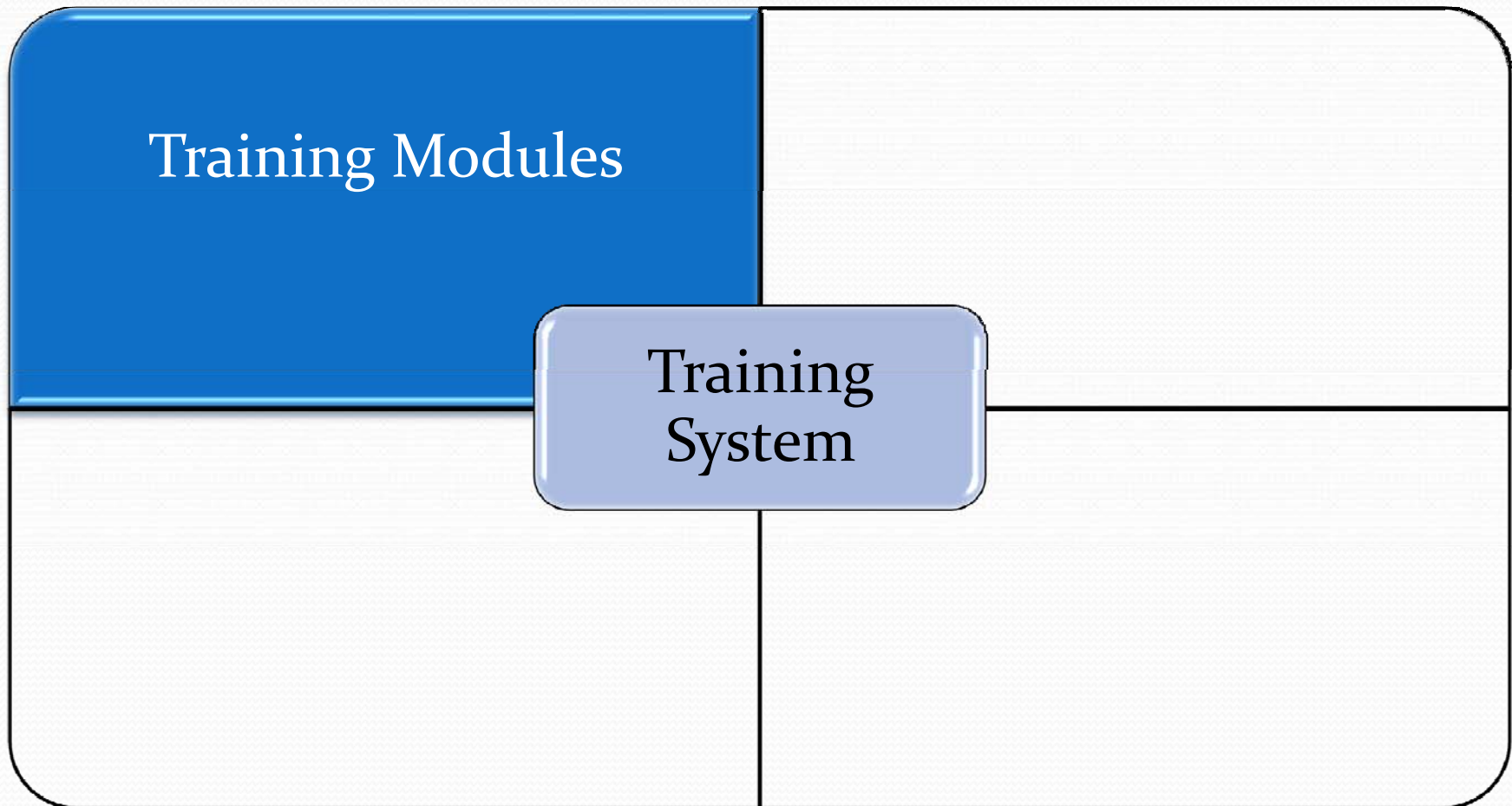
- Full Time Technical Training Coordinator
- Full Time Plant Operator Trainer
- Full time intern the past three years
- Support from over twelve operating group SMEs
- The Lab (right outside the door)



Training System Focus

- We define competencies associated with mission tasks assigned to the following job titles:
 - Plant Operations (Plant Operator I, II, and III)
 - Collections Systems Worker (CSW I, II, III/Lead)
 - Mechanic I and II
 - Electrician/Instrument Technician
- Research to expand to non-technical job titles:
 - Accounting
 - Environmental Compliance

TRAINING SYSTEM COMPONENTS



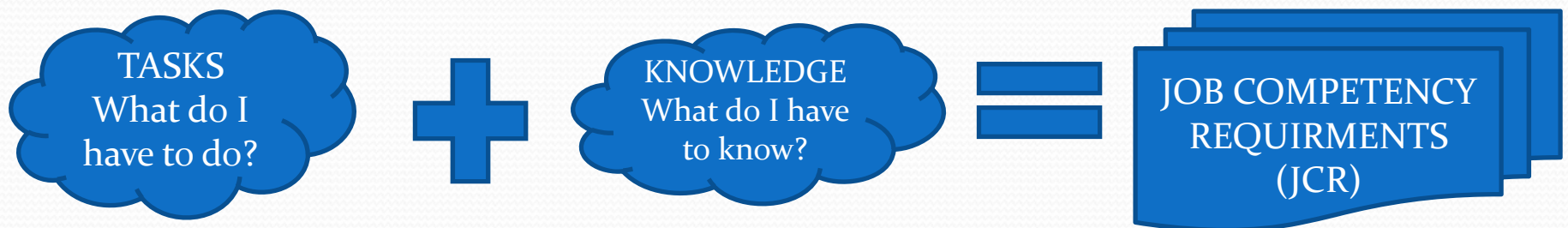


WHAT IS A TRAINING MODULE?

- A collection of documents that together, provide a system the District can use to train, qualify/certify, and assess employees in the proper performance of their job
 - Job Competency Requirement (JCR)
 - Competency Assessment (CA)
 - Standard Answer (SA)
 - Standard Operating Procedures (SOP)
 - Do not cover in this presentation

Job Competency Requirement (JCR)

- The *minimum* knowledge and skills that an individual must demonstrate
- Three sections
 - 300 Section: Tasks (listed in a sequence of accomplishment)
 - 200 Section: Systems (mostly Knowledge / some Skills)
 - 100 Section: Fundamentals (Knowledge)





Do You *Really* Know? - **OR** -

Do You *Really* Want To Know?

- WGLL (*pr.* Wiggle) – What Good Looks Like
- Given a task:
 - Who determines when an employee successfully demonstrates the task?
 - What do you base success upon? What was your standard?



STANDARD ANSWERS (SA)

- USD uses Standard Answers to define WGLL
- Steps in Development of Standard Answers:
 - Developed by the Subject Matter Expert (SME)
 - Reviewed by the SME and Coach
 - Approved by the topic area Manager

COMPONENTS OF A SKILL STANDARD ANSWER FOR SCADA

300 Task: Initiate equipment status change

- A. What are the steps of this procedure?
- B. What are the reasons for each step?
- C. What control/coordination is required?
- D. What means of communications are used?
- E. What safety precautions must be observed?
- F. Satisfactorily perform this task.

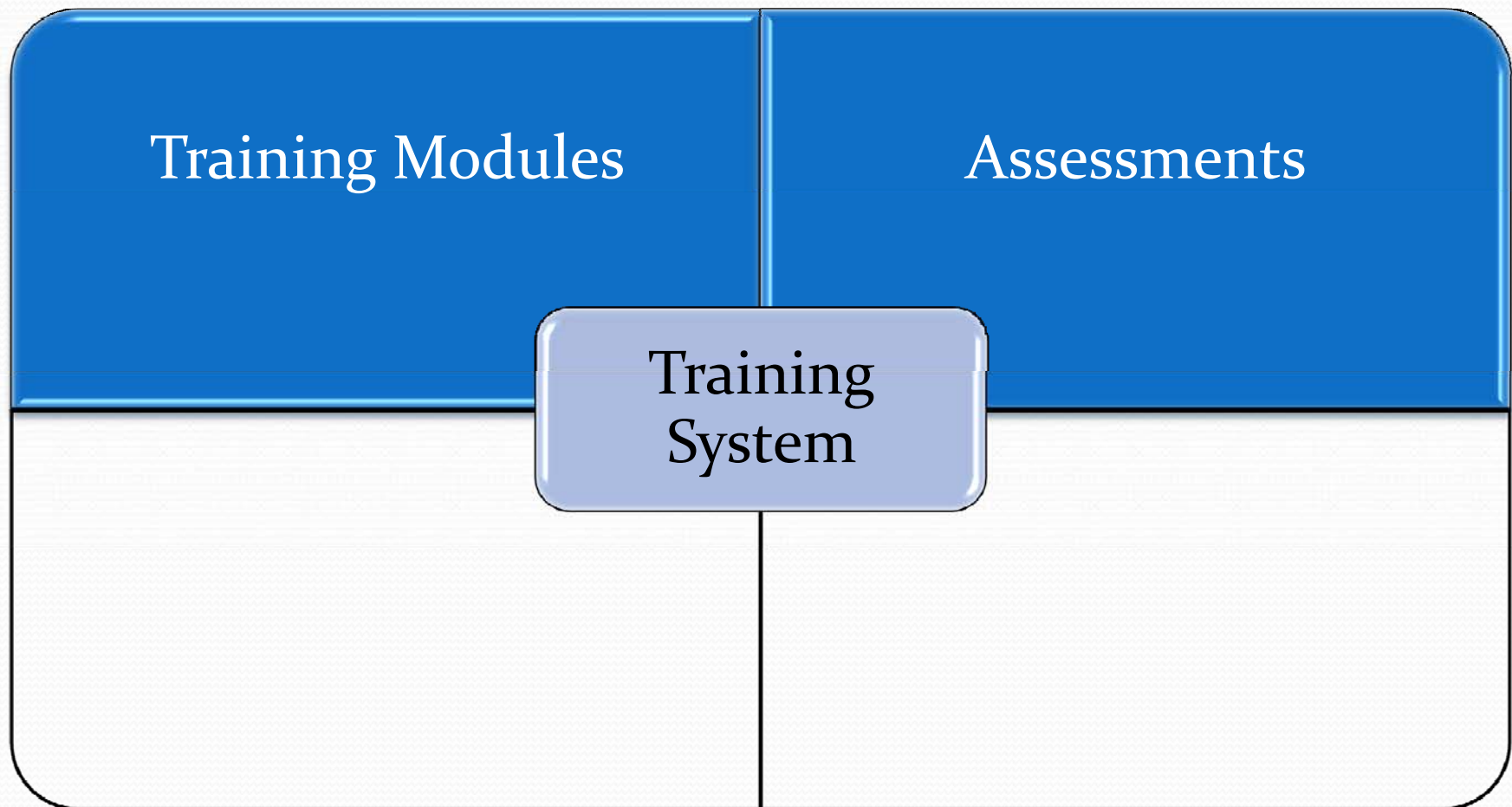
COMPONENTS OF A SYSTEM

STANDARD ANSWER FOR SCADA

200 System: Remote PLC network connections

- What models/types are available?
- Where is it located?
- How does it operate?
- What maintenance is done to ensure proper operation?
- What is its capacity?
- What are the probable indications if this component fails?
- Normal operating parameter status
(ON/OFF/Flow/Amp/Level etc.)

THE TRAINING SYSTEM

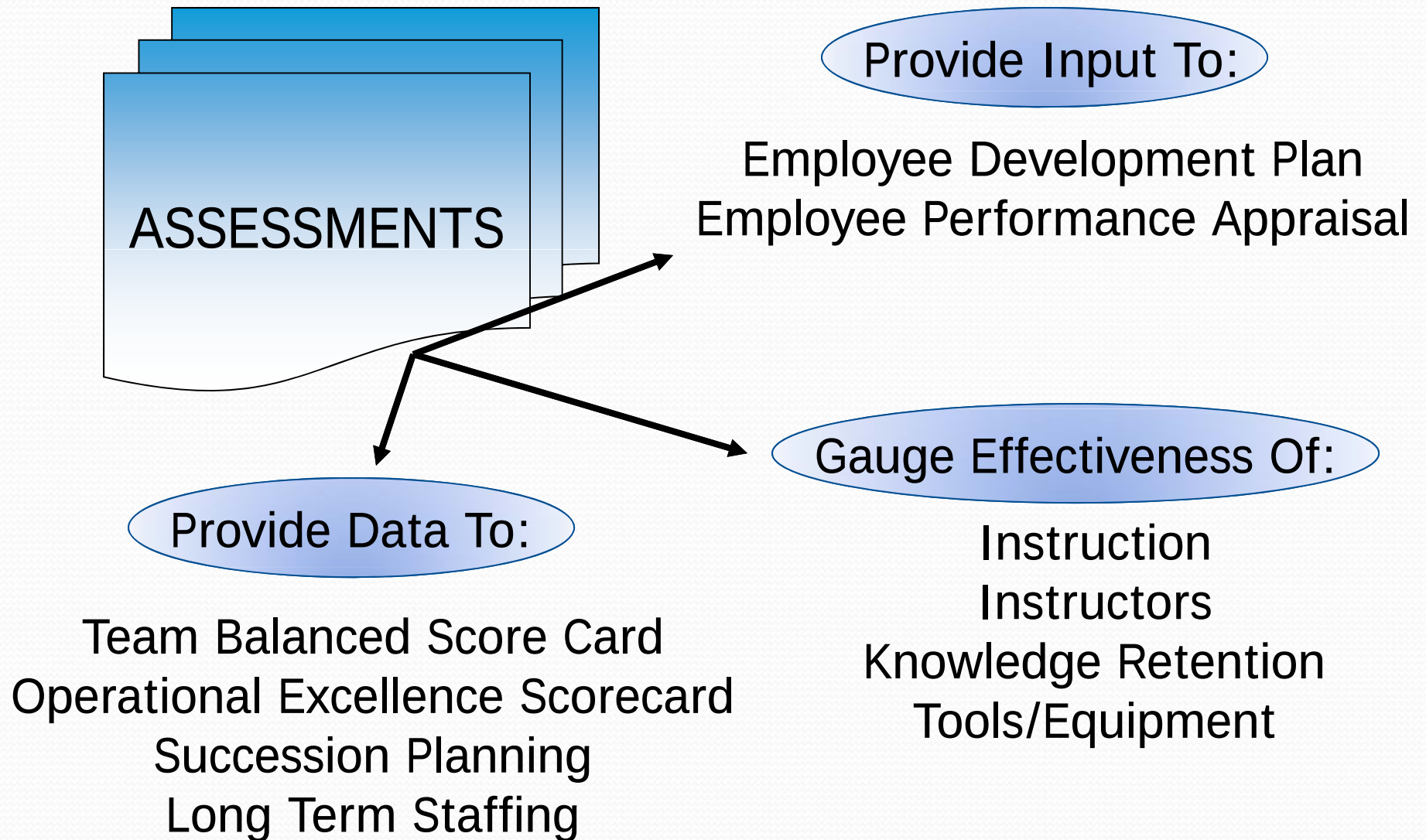




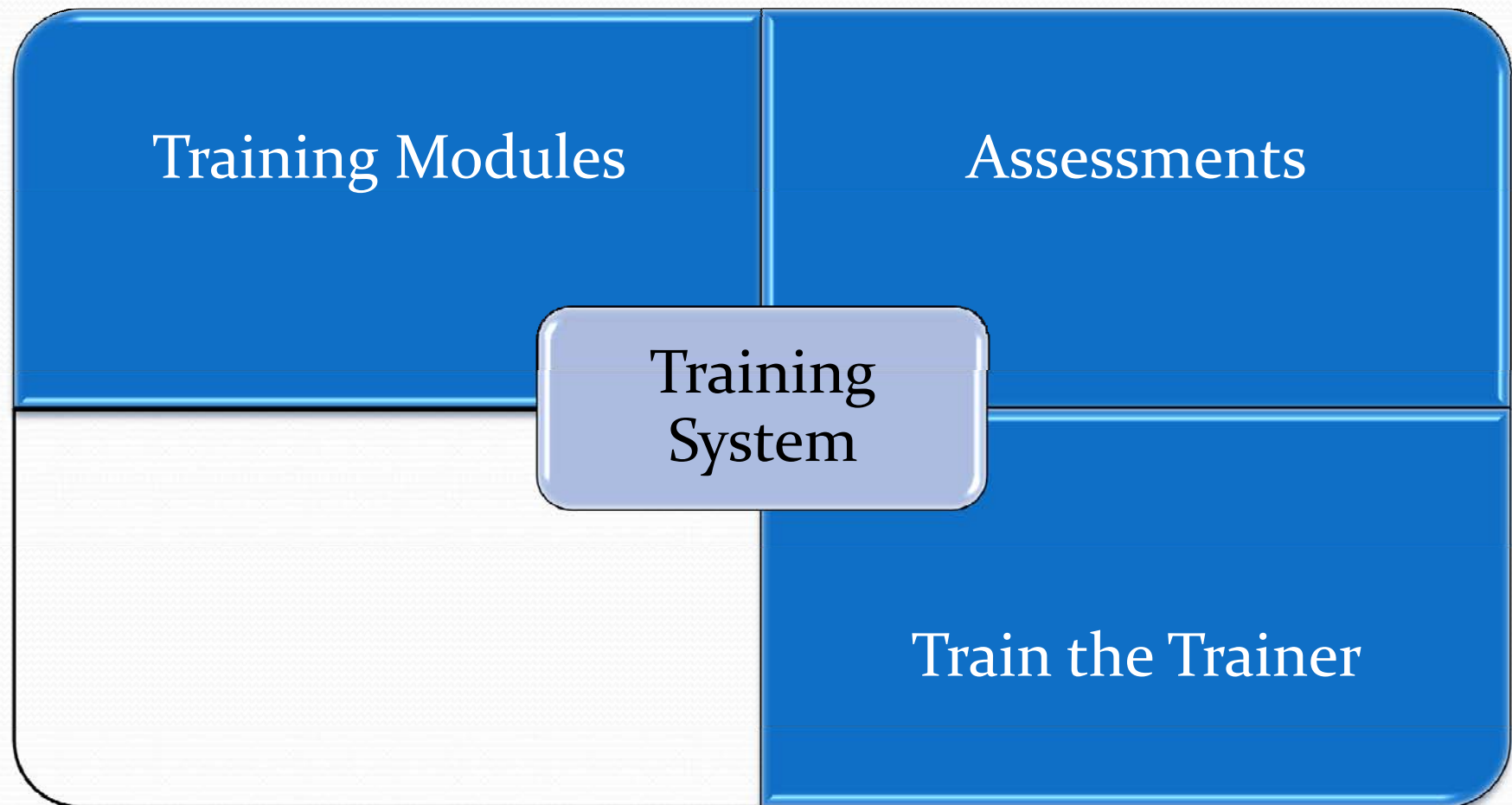
ASSESSMENT DEVELOPMENT

- What do we assess?
 - The minimum knowledge and skills required to do the job
- Where are the assessment competencies?
 - In the training module (JCR and SA) we developed
- We base our assessment on the competencies the employee are trained in/on
- Expanding into critical thinking / scenario driven training (If, Then, Else process)

USING ASSESSMENT DATA



THE TRAINING SYSTEM



ARE YOU MONET?



- A Subject Matter Expert once said about module development:

“...this is an art. You cannot just do this. You cannot be assigned to do it out of the blue. It is no different from painting. If you never learned to paint, the outcome probably won't look good.”

What Makes An Subject Matter Expert, An Expert Trainer?

- What is the process at your site when assigned to train a co-worker?
- The Train The Trainer course
 - Four Modules
 1. Adult Learning Theory
 2. Training Module Development
 3. Training Strategies and Techniques
 4. Competency Assessment

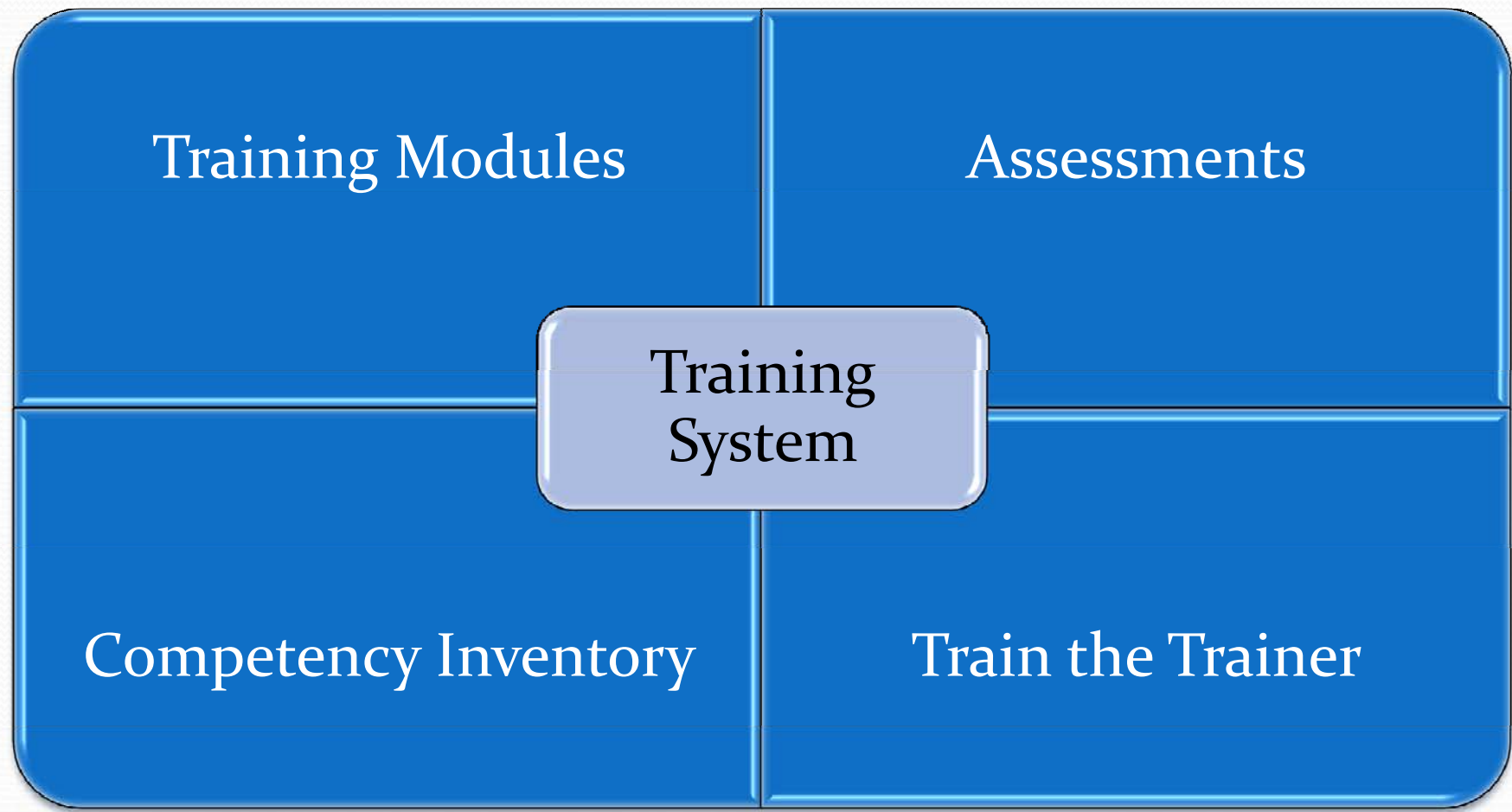
Know what an assessment is and why we use them

Develop an assessment from a Training Module

Assess an employees performance

Develop Standard Operating Procedures (SOP)

THE TRAINING SYSTEM





COMPETENCY INVENTORY

- Tells us:
 - What do we know?
 - Who knows it?
 - What do we not know?
 - What are we going to do about it?



COMPETENCY INVENTORY

- Long-Term Staffing
 - Who is coming and going based on:
 - Retirement
 - Hiring freeze
 - System reduction/integration leading to fewer positions
 - New Capital Improvement projects leading to new positions
 - What will we no longer have to train to
- Succession Planning
 - Who is leaving and when are they leaving?
 - Replace via new hire, train existing employees or outsource?



USD AND THE TERM “TRAINED”

- When we say an employee has been trained:

Training occurs when instruction is given either:

- on the job (OJT)
- in the classroom
- or both

accomplished in concert with/or followed by *successful demonstration of the acquired knowledge or skill*



THANK YOU

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