Competency Management and Performance Improvement for the Next Generation
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I. Skills Gaps and the Need for Competency Management

II. Learning: Past, Present and Future

III. Enablers for Effective Competency Management

IV. Competency Assessments: Core of Competency Management

V. Subject Matter Experts and Performance Improvement

VI. Questions
Skills Gaps:
Transition, Learning Paths and Knowledge Continuity

Over the next decade nearly 3 1/2 Million manufacturing jobs likely need to be filled. The skills gap is expected to result in 2 Million of those jobs being unfilled.

CEOs and manufacturing executives around the world identify talent-driven innovation as the number one determinant of competitiveness. Yet, manufacturing executives report a significant gap in their ability to find talent with required skills. More troubling...the skills gap is expected to grow substantially over the next decade. What impact could the gap have on company performance and how large is the gap likely to grow? The Manufacturing Institute and Deloitte conducted a study to understand the impact and extent of the skills gap, and the study results are as follows:

The skills gap is widening...

Over the next decade nearly 3.5 million manufacturing jobs will likely be needed and only 2 million are expected to be filled due to the skills gap.

The implications are significant...

Every job in manufacturing creates another 2.5 new jobs in local goods and services. For every $1 invested in manufacturing, another $1.37 in additional value is created in other sectors.

By 2025 the skills gap is expected to grow to 2 million manufacturing jobs unfilled due to the skills gap.

The retirement of baby boomers, strength of the economy and attractiveness of the industry are ranked among leading factors impacting the talent shortage.

The most effective skilled production workforce development strategies cited by executives...

- 94% internal employee training and development
- 72% involvement with local schools and community colleges
- 64% external training and certification programs
- 49% creation of new veteran hiring programs

Percentage of executives that indicate current employees are not sufficient in key skills...

- 70% computer skills
- 67% core technical training
- 69% problem solving skills
- 60% math skills

Talent shortage impact to the business...

- 82% of executives believe the skills gap will impact their ability to meet customer demand
- 78% implement new technologies and increase productivity
- 69% provide effective customer service
- 62% innovate and develop new products
- 48% expand internationally

Filling jobs is no easy task...

- 84% of executives agree there is a talent shortage in U.S. manufacturing.
- 80% of manufacturing companies are willing to pay more than the market rate in workforce areas reeling under talent crisis.

SIX out of TEN open skilled production positions are unfilled due to talent shortage.

2.7 Million baby boomer retirements + 700K manufacturing jobs expected from economic expansion = 3.4 Million manufacturing jobs are likely to be needed over the next decade.

In 2011, 660K jobs were unfilled due to the skills gap.

2 Million are expected to go unfilled due to the skills gap.
Competency Management → Performance Improvement
Learning Theory
The Continuous Learning Model

- On-Demand Learning
- Social Learning
- Coaching Mentoring
- Communities Of Practice
- Career Curriculum

Source: Bersin & Assoc, 2010
Learning and Performance Improvement Ecosystem

- **Knowledge Continuity Program**
  - **Explicit Knowledge**
    - External
    - Internal
  - **Tacit Knowledge**
    - Knowledge Capture

- **Workforce Performance Improvement Program**
  - Skills Assessment
  - Learning Paths
  - Learning Tools
  - Custom Aftercare

- **Collaborative Learning Tools and Services**
  - Performance-based Learning
  - Instructored Learning
  - Virtual Instructored Learning
  - Learning Simulation Systems
  - Self-paced Learning
  - How-to Video Library
  - Structured On-the-Job Learning
  - Virtual Mentoring
  - New Hire
  - Job Shadowing
  - Assessment Center
  - Onboarding / Orientation
  - Job Role Profiles
  - Mentoring
  - Continuous Skills Assessment
Identifying Competencies
Embracing Digitalization: Competency Management Enablers

Competencies to Bottom Line
Embracing Digitalization: Competency Management Enablers

Competencies to Bottom Line

Employee Tasks within Job Roles
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Assessing Competencies
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- Competencies to Bottom Line
- Employee Tasks within Job Roles
- Assessing Competencies
- Defining the Skills Gaps
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- Competencies to Bottom Line
- Employee Tasks within Job Roles
- Assessing Competencies
- Defining the Skills Gaps
- How to Close the Gaps
Competency Assessment: A Continuous Approach

- **Foundational Cornerstone**
  - Gather employee demographics
  - Review existing training plans
  - Assign business targets and KPIs
  - Define job roles
  - Verify installed Siemens technologies
  - Apply and refine SITRAIN job profiles
  - Specify desired roles and competencies
  - Establish desired proficiency levels
  - Establish performance standards
  - Track employee success
  - Define composite skill level
  - Report progress via LMS tools
  - Identify skills gap
  - Define individual performance improvement plans
  - Initiate the plans
Step 3. Employee Skills Assessment & Gap Analysis

Results: Field Service Engineer Assessment Overview
Identifying Subject Matter Experts (SMEs)

Level 4 - Expert (Knows all aspects and related areas, executes complex tasks independently)
Level 3 - Advanced (Knows it in depth, executes ambitious tasks independently)
Level 2 - Basic (Knows the fundamentals, executes regular tasks independently)
Level 1 - Beginner (Builds up theoretical or practical knowledge, but does not execute)
Learning and Performance Improvement Ecosystem

KNOWLEDGE CONTINUITY PROGRAM

EXPLICIT KNOWLEDGE
- External
- Internal

TACIT KNOWLEDGE
- Knowledge Capture

WORKFORCE PERFORMANCE IMPROVEMENT PROGRAM

- Skills Assessment
- Learning Paths
- Learning Tools
- Custom Aftercare

COLLABORATIVE LEARNING TOOLS and SERVICES

- Performance-based Learning
  - Instructor-led Learning
  - Virtual Instructor-led Learning
- Learning Simulation Systems
- Self-paced Learning
- How-to Video Library
- Structured On-the-Job Learning
- Virtual Mentoring

- New Hire
  - Job Role Profiles
  - Assessment Center
  - Onboarding / Orientation
- Job Shadowing
  - Mentoring
  - Continuous Skills Assessment

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Technical Learning Services Learning Tools and Services

- **Learn Here/There**
  - Instructor-led Learning

- **Learn-as-you-Go**
  - Self-paced Learning

- **Learn Now**
  - How-to Video Library

- **Learn Live**
  - Virtual Instructor-led Learning

- **Learn-as-you-Grow**
  - On-the-Job Learning

- **Dial a Mentor**
  - Virtual Mentoring
Questions
SITRAIN – Training for Industry
Thank you for your participation!

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