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Upskilling and Reskilling Initiatives for the Future of Manufacturing

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Introduction

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Woodward Inc.

My Company / Business Challenge

WOODWARD

- Woodward Inc. Founded in 1870
- 40+ locations in 13 Countries
- 9,000 members globally
- $2.9 billion in sales in 2023

Business problem:

- *Train and Retain the top talent*

My Company / Business Challenge

Business challenge

- Covid layoffs depleted skilled machinist workforce
- Manufacturing pipeline in the region is insufficient to meet current needs
- Increased hiring of unskilled members

Objective

- Efficiently and effectively train new machinists
- Upskill current members
- Reduce training impact on production
- Retain best talent

Solution

- Internal and external training activities
- Partnerships with community colleges

Solution / Program

- The program: “First 180 days” for a Multus (5 Axis Lathe) Operator
- Key program objectives: Efficiently develop productively independent Multus operators
- Key program elements:
  - Onboarding
  - Basic Machinist Training
  - OJT Checklist
  - Virtual Reality Training
- Key program considerations: Time, Cost, Effectiveness

Program Detail

- Business impact:
  - Increased retention of members who participated in BMT
  - Reduced machine down time
  - Reduced load on production trainers
- Lessons learned:
  - Forcing function to complete training
  - VR content creation is complex, time consuming, costly, and requires input from a wide range of stakeholders

Basic Machinist Training (BMT)

Rock Valley College

8 Weeks (64 hrs)

- Paid Tuition & Member salary
- Overview of machinist skills
- 50% Classroom
- 50% Hands on

VR Training

5 Modules (75 Min)

- Overview
- Preventative Maintenance
- Set-up/Load/Run
- Offset Adjustment
- Stop/Start Midcycle

Lessons Learned/Next Steps: Basic Machinist Training

- **Impact on business:**
  - 64 hours of training with reduced impact to production
  - Support community partners
  - Provides a safe learning environment
  - Increases employee engagement & retention
  - Builds member confidence
  - Enhances problem solving skills
- **Training Challenges**
  - Community manufacturers unable to match Woodward program support
  - Qualified instructors at RVC

- **Why we were successful**
  - Surveys & focus groups with participants
  - Audits of RVC program
- **What did we learn**
  - Communication with stakeholders
  - Promotion of program
- **Next steps**
  - Continued refining BMT content & delivery
  - Additional skills for specific machines

BMT Delivery | Advanced Content

Lessons Learned/Next Steps: Virtual Reality Training

- **Impact on business:**
  - Prevention of 1x spindle crash = vendor cost
  - Increased learner engagement & retention
- **Training Challenges**
  - Approximately $200k for 75 min of content
  - Headset integration on Woodward network is incomplete
- **Why we were successful**
  - Included trainers, current operators, and experts in the design phase
- **What did we learn**
  - Need to standardize operations across depts
  - Identify subject matter experts before launch
  - Pilot with more operators
  - Complete design steps parallel to contract process
- **Next steps**
  - Additional case uses
  - Determine best headset for expansion of program
  - IT integration on network

Additional Case Uses | Equipment Solutions | Network Integration

Summary / Conclusion

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- Successful, sustainable training programs are only possible if organizations have a positive learning culture
- Positive learning cultures are the key to business success
  - Promote opportunities for development
  - Encourage open dialogue
  - Empower members / employees
  - Foster collaborative learning
  - Have supportive leaders
- Training: “Pay it now or **PAY** it later”

Thank You!