



Executive Summary

New Gold's Rainy River operation is a recent start-up project located in Ontario, Canada. In early 2015 while prescribing an extremely aggressive schedule management challenged their new Training Manager, Roger Pomerleau to:

- Recruit and train 160 equipment operators from a virtually inexperienced local labor pool
- Use a competency-based approach to train them
- And identify coaches from the first group of new hires who would then train the next group of new hires.

With virtually no staff and limited time and resources to develop programs, Roger opted for VISTA Training's Logic series consisting of haul truck, dozer, grader and shovel operator to provide a 'turnkey' solution. These competency-based programs include course maps that layout an easy-to-follow process, a series of skills building computer-based lessons, and structured On-the-Job coaching guides. Also included is a Train-the-Trainer (TTT) session.

As Roger explained, *"All I had to do was follow the process to move inexperienced operators to level 1, where they were operating safely and performing critical tasks following the 'best practices' taught in the program and reinforced by coaches in the field. It was all quite easy."*

Every new hire was treated as 'potential coach'; they were trained to operate a haul truck (VISTA TruckLogic) and participated in a Coaching Skills program. Many were subsequently promoted into supervisory, team leadership, dispatch and coaching roles. They took with them a respect for the process and training they had personally experienced. And, most importantly, they continued to consistently support and reinforce the process to foster a safety-focused, skills-based culture.

As the coaching staff grew, Roger was freed up to develop a strategy for advancing operators to the next level. He developed evaluation metrics for each piece of equipment that allowed coaches to identify and prioritize operators most in need of additional coaching. In hands-on sessions, coaches focused on providing operators with tips to improve their productivity and returned at the end of the cycle to measure improvement and reinforce new techniques.

During the entire 1-1/2 year start up, at any given time, 50% of the onsite workforce had less than a month of experience on the equipment they were operating. In spite of this 'green' workforce, management met its targets and continued to realize incremental increases in tonnage with the same number of operators and equipment, and there have been no major incidents or accidents. From Roger's perspective, *"It was a thing of beauty to observe. Watching former waiters, morticians and laborers become skilled operators, step up to coach others and assume leadership positions solidified the process and made everyone trust the soundness of the approach."*



New Gold Case Study

Roger Pomerleau, hired early in 2015 as Training Manager for New Gold's Rainy River Operation, a start-up mine located near Rainy River Ontario, Canada, had previously been onsite at Suncor where he helped implement VISTA's TruckLogic™ training curriculum.

Prior to implementation Suncor had re-engineered many critical processes, and although they planned to measure results from the implementation, expectations for achieving additional productivity gains and safety improvements were not very high.

When an extensive evaluation of the program revealed that operators trained using the TruckLogic™ program were involved in 50% fewer incidents / accidents and achieved an impressive 4% gain in productivity over operators trained using the old method, Suncor management took notice. The VISTA TruckLogic™ program and Suncor training staff were awarded Suncor's Presidents Award for Excellence and VISTA and Suncor were joint recipients of the Canadian Society for Training and Development (CSTD) Gold Award.

In his new role with New Gold, Roger was eager to test whether TruckLogic's™ success at an existing mine would translate to a start-up mine where the challenges were very different.

New Gold Background

Local labor pool

New Gold's management was committed to hiring locally; however, they acknowledged that the local labor pool in this remote location was unskilled and would require extensive training. While a few candidates had previous forestry experience, most were unskilled hotel front desk clerks, wait staff and one had been a mortician in his previous life.

Use Training to Create the Desired Culture

Mine Management did not want the training group to borrow from the approach used in other New Gold mines that relied on the 'buddy' system where experienced operators train new hires. Instead, New Gold management adopted the Ontario Ministry of Advanced Education and Skill Development (MAESD) education-based, competency-driven model based on empirical evidence of a better way to train.

What do we know about the pitfalls of using experienced operators to train new hires? While using experienced operators appears to be a sound approach, the potential for 'bad habits' or ineffective and unsafe approaches to be transferred inadvertently is a real concern.



Experienced operators are often unable to accurately explain how they perform a task because the task has become second nature to them. The operator may even be unaware that he is omitting important steps. He sincerely believes that if he just shows the trainee how to do it, they should be able to replicate that performance without further explanation. And the experienced operator often forgets to explain why they are doing something a certain way, or what could happen if steps are omitted or shortcuts are taken. For these reasons, management preferred that coaches be identified and developed from the pool of (inexperienced) new hires who would be trained from the start to perform tasks safely and using best practice approaches.

They recognized that this new mine presented an opportunity to create a safety-first culture focused on teamwork and respect. They believed that the foundation for that culture was a competency-based training program and a process for identifying and developing coaches, supervisors and leadership from within the pool of new hires.

Equipment / Simulator

Komatsu would provide 830E-AC electric haul trucks and two matching shovels by year end; however, the delivery date changed daily due to problems with mobilization, travel permitting and manpower for assembly. There was no guarantee that equipment for training new operators would be available for the earliest hires.

While a Simulator was on order, delivery was delayed. This was not viewed as a problem, because the plan was to use the simulator for remediation and to provide new operators with training in special circumstance, for example, slippery conditions or fog; conditions that might not occur during the time they were in training, but which they needed to practice handling.

Learning Management System (LMS)

The training department would also purchase and configure its own Learning Management System (LMS), or locate an LMS vendor to host online learning programs and manage administrative and recordkeeping functions.



New Gold Training Plan

Schedule

Training was accomplished in waves. During Wave 1, August – September 2015, a small group of eight (8) 'somewhat experienced' operators were trained to operate haul trucks using VISTA's TruckLogic™ curriculum. They were then designated for development as New Gold coaches who would train the next two much larger waves of inexperienced new hires.

During Wave 2 (September 2015 through February 2016) another 80-90 new operators were on-boarded, followed by a final Wave 3 (September 2016) when an additional 60 operators joined the team.

VISTA's Heavy Equipment Operator Training Logic Series

Absent a training staff and staring down an extremely aggressive timeline, developing multiple training programs for different machines was not a realistic alternative. Instead, Roger opted for a 'turnkey' solution and turned to VISTA Training to provide a skills and competency-based solution that aligned with the Ontario MAESD standard. VISTA Training's Logic series of heavy equipment training curricula includes four heavy equipment curricula: TruckLogic™, DozerLogic™, ShovelLogic™ and GraderLogic™ and provided a turnkey training solution.

VISTA Logic series programs are instructionally designed to ensure operator training is:

- **Safety-first** focused
- **Consistent** - grounded in industry 'best practices' for performing critical tasks
- **Blended** - ensuring all learning styles are accommodated
- **Progressive** – building from foundational skills to more complex skills and concepts
- **Measurable** - based on observable skills assessments
- **Documented** – to ensure regulatory compliance and seamless handoffs from one coach to the next

VISTA Logic Series Training Components

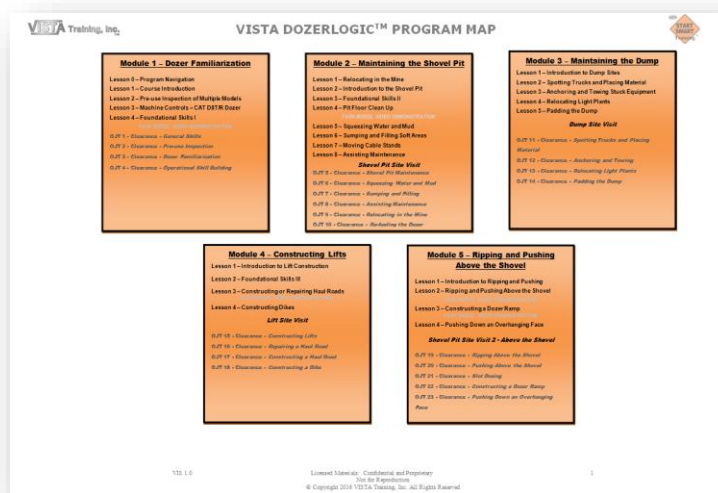
All VISTA Logic series operator training programs include:

- A Course Map
- Computer-based Lessons, online learning modules
- An On-the-Job Training Guide
- A Simulator Activities Guide (Optional)
- A Train-the-Trainer session facilitated by a VISTA certified instructor



The Course Map

A visual representation course map provides an at-a-glance, step-by-step process for implementing any VISTA Logic program. For example, the course map describes when a new operator should complete a computer-based lesson, visit a location in the mine, or practice performing a critical skill. Expectations talks are also included; they are scheduled times within the program when trainees meet with site Supervisors who share what they need the operator to do to ensure their sites operate at peak productivity



These Individual program components are ‘blended’ together to ensure training is effective and that new operators master all critical tasks a specific machine operator will perform.

Computer-Based Lessons

Acting as a foundation for the Logic Series the computer-based lessons are delivered via the Learning Management System (LMS) which is accessible from any location, on, or off the mine site, on a 24/7 basis. For example, the DozerLogic™ curriculum includes five modules and 25 computer-based lessons. Lessons build from basic, foundational skills to more complex skills and concepts.

VISTA Training innovated a new instructional technique, the *Task Model Video™* (TMV). TMVs are included in many of VISTA’s computer-based lessons and allow new operators to observe in a “ride with an experienced operator” way as he performs a critical task. The experienced operator narrates the video, explaining in detail the steps he is performing while cameras mounted inside the cab, on key locations on the equipment (e.g., the dozer blade) and at ground level follow the operator’s hand / foot movements and document the results he’s getting in real time.



On-the-Job Training Guide

When the coach and trainee move onto the mine site, an On-the-Job Training Guide provides instructions, worksheets and assessment tools for conducting site visits, skill demonstrations and practice sessions. On-the-Job activities are intentionally interspersed with computer-based lessons to allow trainees to observe, first-hand how operators perform the task they just learned about. Task Checklists enable coaches to review specific steps involved in performing a task and then to use them to evaluate and provide feedback as the trainees perform that task.

A Simulator Activities Guide (Optional)

If an equipment operator training simulator is available, VISTA may assist the training staff to integrate the 'right' simulator sessions into the course map at the appropriate location for any machine in the Logic series.

VISTA Train-the-Trainer

A Train-the-Trainer (TTT) facilitated by a VISTA certified instructor is included with each Logic series program. TTT sessions focus on developing crucial coaching skills including "narrative coaching™" whereby the trainer learns to describe his actions as he performs a task. Trainers learn how to complete Skills Checklists to document trainee performance and how to provide actionable feedback to 'anchor' good performance or correct unsafe or ineffective approaches.

VISTA Customization Services

To supplement the core training New Gold contracted VISTA's instructional design team to develop customized computer-based lessons for their Komatsu 830E-AC haul truck and shovel.

VISTA Onsite Coaches

Initially, New Gold added VISTA trainers to work as staff members. These additional trainers worked along-side fellow New Gold employees and brought a wealth of experience to the new mine. Gradually, the presence of VISTA trainers reduced and later eliminated as the mine staff grew in maturity ready to accept complete responsibility for the training function. While onsite support has ended, the VISTA licensed programs combined with available follow-up Train-the-Trainer sessions continue as the foundation for the mine's operator training program.



Results

Consistent Process, Turnkey Solution

VISTA training heavy equipment Logic series offered competency-based programs and a consistent process. They provided inexperienced operators the theory and basic skills that enabled them to perform critical tasks safely and effectively. As Roger explained, *“all I had to do was follow the plan (Course Map) and enlist VISTA’s support (Train-the-Trainer) to move my inexperienced trainees to that first level quite easily.”*

Promotion Based on Accurate Skills Assessments

Using VISTA’s Skills Checklists helped enable New Gold coaches to assess a new operator’s ability to perform critical tasks safely, by following ‘best practice’ steps and procedures. All New Gold operators who were signed off on a specific pieces of equipment – haul truck, dozer, shovel, grader – had to demonstrate their ability to perform critical tasks before final signoff. Skill assessments also allowed coaches to identify early in the process any operators who were having difficulty and who were not suitable candidates to operate specific equipment. This saved valuable coaching / training time and helped to redirect trainees into more suitable machines / roles.

Value of Viewing Everyone as a Potential Coach

Beginning with the first wave of eight operators, every new operator (regardless of previous experience) received the same initial training which included VISTA’s TruckLogic™ program AND a coaching skills program. The message sent to all was – *“Everyone is a potential coach.”*

New hires from all waves migrated into supervisory, team leadership and coaching positions and carried with them a respect for the training and the process they had personally experienced. When it was their turn to set expectations, they continued to support and reinforce the process that fostered a safety-focused, skills-based culture.

Of the initial group of eight operators **only three had previous mining experience**. Those three and three additional operators from that group remain on staff, serving in coaching, supervisory, dispatch or management roles. One of them, Brad Loveday, recently became the new Training Manager, after Roger left New Gold, and an additional 30+ coaches have joined the coaching staff from subsequent waves of new hires.



Moving Operators to the Next Level

New Gold did not have to allocate valuable time or expend scant resources creating training or defining the process for onboarding new operators. By following VISTA's process, they were able to transform 'green' inexperienced new hires into fully functioning haul truck, dozer, grader and shovel operators.

Once operators achieved that first level, the training staff focused its efforts and resources on raising the level of performance of individual operators. Individual operators were assessed on the equipment they were operating in three areas – safety, productivity and level of supervision required. Based on those assessments, coaches identified operators who could benefit from additional coaching. These operators were then “touched” twice – at the start of a cycle, when they received tips for improving their productivity, and again at the end of the cycle, to measure improvement and reinforce new behaviors / techniques thus moving them to a higher level of productivity / performance.

Safety / Performance Results

During the 2 year period following start up, New Gold experienced no recordable major incidents or accidents. Considering the entire workforce was inexperienced, that is an impressive achievement and one that Roger attributed directly to the consistent, competency-based training all new hires experienced!

Asked whether his operators were performing at or above industry standards, Roger explained that the problem in accurately measuring productivity is the difficulty in separating operator skill from the operational environment. For example, if the dump is not set up properly, the operator cannot perform at peak efficiency.

While measuring individual operator productivity was difficult, management did have a mine plan and specific productivity targets. They confirmed that they were consistently achieving incrementally more tonnage with the same number of people and equipment. Tonnage continued to increase despite the fact that at any given time, 50% of the workforce had less than 1-2 months experience on the equipment they were operating.

From Roger's perspective, *“It was a thing of beauty to observe. Watching former waiters, morticians and laborers become skilled operators, step up to coach others and assume leadership positions solidified the process and made everyone trust the soundness of the approach.”*