



The Conference Board
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CASE STUDY 30

*A core product of
the National Business
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Program

Workplace

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Contact

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Name of Program

Workplace

Education—PEI

Skills Developed

Fundamental

Personal Management

Teamwork

Effective practices in providing training and supporting
workplace learning

DURABELT INC.

Empowering Adult Learners

*Winner, Award for Excellence in Workplace
Literacy, 2000, Small Business Category*

BY KURTIS KITAGAWA

November 2000

Overview

Located in Montague, Prince Edward Island, Durabelt Inc. is a small business that employs 5 to 35 people, depending on the season. The company markets its products—belted chain conveyor belting and associated components for harvesting root vegetable crops (e.g., potatoes, carrots, beets, turnips, onions, garlic) and soft fruits (e.g., strawberries and field tomatoes)—through dealerships in Canada and the United States. Durabelt's belted chain products sieve out unwanted dirt and vines while conveying the cash crop to the truck.

Every belted chain is a customized product. From the point of view of generic employability skills, manufacturing belted chain involves a combination of literacy, numeracy and problem-solving skills. Employees need to be able to read, understand and fill work orders. They also need to divide, punch and split cloth-reinforced rubber belts and calculate the number and sequence of straight rods to crank rods for a given belt, knowing the overall length of the belt and the spacing required between the rods. As well, employees must calibrate cutting, bending and punching machines used to make rivets and rods from stock steel

wire and hinges from sheet metal, also kept in stock. And they need to measure and mix chemicals in the right proportions to get the job done with a minimum of waste. In addition, maintaining efficiency sometimes requires employees to machine replacement parts for their own equipment. Being able to make repairs in-house with Durabelt-produced replacement parts avoids costly delays, increases profit margins and makes the company more self-sufficient.

From the foregoing, it is clear that to be effective in their jobs Durabelt employees need to be adept not only at using their technical job-specific skills, but also at applying those skills against a background of managing their time, sequencing operations, working in and supporting teams, working safely and dealing with external customers, who purchase belted chains and bring in old chains for repair. For the company to succeed in a highly competitive manufacturing environment, Durabelt employees must continually hone and deploy all of their skills—generic and job specific—in driving productivity, reducing waste and re-work and delivering a consistently high-quality product on budget and on time.

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Background

Durabelt has long understood that to operate an economically successful business—and provide a rewarding and fulfilling work environment for its employees—means hiring and promoting individuals on the basis of their skills, abilities, attitudes and characteristics. The company's policy has been to administer a job-related aptitude test to help determine the suitability of a candidate for a specific job, or for job changes or promotions. Hand in hand with assessment is investment in the training and development of employees. Durabelt believes that employees who want to continue their education, in addition to working at their full-time jobs, are demonstrating their commitment to improving themselves and their position within the company. Durabelt encourages and rewards these individuals and invites employees to tell their managers about training programs that they believe will enhance their skills or those of their co-workers, and it offers to reimburse employees for tuition costs incurred in job-related training.

Against this backdrop—recognition of the importance of employee skills and of the need to invest in employee education—it was not surprising when, in 1997, the then-manager of Durabelt, Douglas Sutherland, pushed for workplace education when skill deficiencies on the shop floor started to affect productivity. At that time, several employees were experiencing trouble reading and understanding work orders, doing the required calculations and solving day-to-day production problems. Sutherland's observation that his employees faced literacy, numeracy and problem-solving challenges was confirmed when he administered a standardized test and discussed the results one-on-one with individual employees.

Sutherland knew that enhancing employees' literacy and numeracy skills

would be a win-win situation for employees and their families, on the one hand, and the company, on the other. It would better equip employees to work through problems encountered in the workplace, which in turn would enhance their self-confidence. Employees would be able to take pride in their work as students and as employees, and this would be reflected in improved quality of life at home and in the products they made at work.

It was with a firm desire to close a skills gap among his employees that Durabelt's manager approached Workplace Education-PEI for assistance. Workplace Education-PEI promotes and co-ordinates skills development programs in workplaces throughout Prince Edward Island. It receives funding from the National Literacy Secretariat, Human Resources Development Canada, the Atlantic Canada Opportunities Agency and the Government of Prince Edward Island.

The Process

Step 1

Workplace Education-PEI responded with an employee-centred process suited to the needs of adult learners and, crucially, designed to build maximum employee/employer ownership and buy-in right from the start. Ruth Rogerson, a field officer with Workplace Education-PEI, made a presentation to all interested employees and managers about the services of her organization.

Step 2

The second step was to put together a workplace project team composed of a representative from management, an employee from each department and learners. The different players on the project team brought their various perspectives to the table and shared information to begin the process of planning and implementing a workplace education program for Durabelt's employees.

The Skills Forum Mission

We are committed to improving the productivity and quality of life for individuals, organizations and society by enhancing the employability skills of the current and future workforce of Canada.

This study was made possible through funding by National Literacy Secretariat, Human Resources Development Canada

Step 3

The first task of the project team was to schedule interviews for the organizational needs assessment to be conducted by the field officer from Workplace Education–PEI. The needs assessment interviews focused on the challenges associated with, for example:

- ✓ downsizing;
- ✓ changing methods of production or service delivery;
- ✓ introducing quality improvement plans;
- ✓ unacceptable accident rates;
- ✓ changing legislation, which requires increased certification for workers; and
- ✓ training that has not produced the desired results.

When Rogerson analysed the data, she was able to form a clearer picture of the employability skills needed by Durabelt employees, the company's current workplace training practices and policies and, on a basic level, the learning needs of employees. The field officer's findings showed a wide variation in employees' literacy levels and underlined some of the problems employees had in following work orders.

The project team then interviewed and hired instructors for a "Duraschool," a workplace-based school that would focus on enhancing employees' skills in the areas of math and communications for manufacturing.

Interested employees were invited to attend classes for two three-hour evenings a week for 16 weeks to update and improve their math, reading and writing skills. Classes were held in the lunch room and in an office at Durabelt, and interested family members and friends were also invited to attend. Participation was voluntary.

Having instruction on-site afforded employees a safe, non-threatening learning environment. No one knew they were going "back to school" in the evening because classes took place at their place of employment. Moreover, having instruction on-site ensured that employees could get support in solving problems directly

related to their jobs. The shop floor could be used as a teaching and learning vehicle. Employees could practise their communication skills by writing operating instructions for different pieces of equipment used in their jobs, which would then be followed by co-workers.

Step 4

In the next phase of the process, the workplace instructors took the lead. Instructors toured Durabelt collecting written materials used in the workplace, including the employee handbook, work orders, safety sheets, pay stubs and company brochures. Instructors also held informal individual interviews with employees to determine a starting point for instruction. They then worked with individual employees interested in upgrading their skills and adapted written workplace materials into a workplace education curriculum. Finally, the instructors developed customized learning plans for each employee and divided learners into two groups, according to similarities in their learning needs.

Step 5

Learning activities at Duraschool included:

- ✓ having trainers develop word lists of varying degrees of difficulty so learners could become fluent in technical terminology
- ✓ having employees write out operating instructions for machines to develop their writing skills and their ability to communicate with each other while learning how to operate equipment safely and efficiently
- ✓ having employees locate Durabelt's customers on maps, using a list of companies from accounts payable/receivable—this activity helped teach geography and map-reading skills while acquainting employees with Durabelt's customers
- ✓ having employees calculate percentages to help them make their own

People have to develop more skills if they are going to be employed longer during the year or in their careers. ►

Employees need literacy at various levels, for example, to read and apply information contained in maintenance and safety manuals, or to skim information required for immediate action, or to learn new terminology or technical vocabulary. ►

conversions when mixing chemicals to make urethane—previously, employees relied on examples listed on the mixing chart, which did not cover all the possibilities and led to inappropriate pours and wasted product

- ✓ having employees use ratio and proportion to calculate the number of crank rods to straight rods used in a belt

Step 6

Participating employees were honoured at a dinner celebration and were presented with certificates and monogrammed T-shirts.

Challenges for Government Funders

- Operating workplace education within the mandate of a provincial department of education
- Focusing not on who is responsible for doing x, y or z but on who has the ability to make things happen
- Having funders at the table so they see their interests are represented—avoiding a “you write the cheque, and we spend it” situation
- Understanding that people have to develop more skills if they are going to be employed longer during the year or in their careers
- Having business buy into workplace education
- Helping business to subtly develop a learning culture among managers and people on the shop floor
- Helping employers understand that having a Grade 12 cut-off for hiring does not mean they do not have an education problem in the workplace
- Getting employers to pay more attention to candidates who are capable of learning, are motivated and flexible and have a good attitude

Challenges for Training Co-ordinators

- Marketing workplace education to business—if management does not buy in, the information does not get to employees

- Selling a needs assessment as opposed to a fixed product—business wants to know precisely what program would be delivered, and getting the emphasis right depends on understanding their needs
- Retaining workplace educators on a part-time basis—educators tend to get full-time jobs
- Providing adequate in-service training and time for instructors to network and share ideas

Challenges for Instructors

- Assessing the needs of each individual learner—what they need and want to learn and how they learn best—and designing curricula to suit learners’ different learning styles
- Teaching a class where learners are at different skill levels and have different learning needs (similar to teaching in a one-room school house)
- Having the creativity to turn written workplace materials into curriculum and learning activities that are engaging, relevant and fun for employees
- Gaining the confidence of employees—adult learners “vote with their feet,” so if their needs are not met, they will not come back
- Feeling isolated—not having a forum in which to share knowledge about what works and what does not with other trainers
- Helping learners decide on their objectives and set their personal learning goals
- Raising the literacy issue with employees without giving offence—showing them they need literacy at various levels, for example, to read and apply information contained in maintenance and safety manuals, or to skim information required for immediate action, or to learn new terminology or technical vocabulary
- Motivating people who do not need high literacy levels for their jobs to stick with literacy training—for example, including workplace materials in preparatory work for writing the

It is not the employer's responsibility to keep people employed—employees need to decide the things they want to do and the things they need to know to get them where they want to go.

- Grade 12 equivalency exam (GED) so learners can learn skills without using a GED book
- Knowing where to get help for people who have learning difficulties

Challenges for Learners

- Being afraid to try new things
- Becoming learners again, which can seem like “going back to school” and is hard for those who left school early
- Recognizing that they need to learn and seeing how they are going to use what they learn
- Understanding that it is not the employer's responsibility to keep them employed—employees need to decide the things they want to do and the things they need to know to get them where they want to go
- Seeing they have nothing to lose—the training is free and the results are confidential
- Learning how to learn and preparing to write certification exams at the end of workplace training
- Becoming familiar with technology not normally used in day-to-day work, for example, fax machines and photocopiers

Challenges for Business

- Keeping workplace education programs running after government funding is withdrawn
- Believing in learning throughout the organization, from the receptionist to the managers
- Maintaining investment in employee education even if the benefits cannot be quantified using a traditional return-on-investment model
- Appreciating the importance of not using tests that assess employee learning in terms of grade levels—such testing does not make sense for adults and can reduce self-confidence
- Allowing workers to use the workplace as a learning environment so they feel comfortable learning—no one will know they are “going to school”
- Showing a genuinely humanitarian

purpose in encouraging learning—taking an interest in the well-being of learners helps improve their morale

- Making sure employees understand why it is important to obey safety regulations—they need to realize that these are not arbitrary rules and cannot be ignored
- Considering ways to reward employees for learning—perhaps through time off or extra pay for part of the training time
- Assessing learning styles and tailoring teaching approaches accordingly (e.g., by including hands-on activities)
- Focusing on how to get the most out of their people instead of on manipulating numbers—increasing the duration of a shift by 25 per cent will not necessarily lead to a 25 per cent rise in productivity

Keys to Success for Training Co-ordinators

- Making a short video highlighting programs they are already running to use as a marketing tool
- Spending time up-front showing a company what is entailed in setting up and running a successful workplace education program
- Helping the project team make good hiring decisions, whether hiring a tradesperson with teaching skills or opting for an adult educator who has the people skills for a given workplace education project
- Familiarizing training instructors with trade-related skills, so they can help people hone these skills as well as build their study and test-taking skills; trades training is not the mandate of workplace education, at least in Prince Edward Island
- Ensuring the confidentiality of information generated through an organizational needs assessment—this is important because it enables employees to be frank about issues
- Taking education to the people instead of expecting them to seek it out
- Keeping trainers current by sharing

Avoid the deficit model approach (“this is where you are, and this is where you should be, so here is how much you have to catch up”).

Start with what learners feel they need to know for their jobs or with real challenges they are facing in their lives (e.g., understanding the concepts of principal and interest when taking out a car loan).

success stories about what other companies are doing in teaching and evaluation

- Monitoring and evaluating each program to solve problems as they arise

Keys to Success for Trainers

- Taking a developmental approach to learners that assesses where they are, looks at where they want to be and makes a plan to get there that builds on individual learners’ strengths
- Knowing how to build a learning team
- Being able to recognize when someone has a learning disability and knowing where to get help
- Showing learners that they are not deficient—rather, the world of work is constantly changing and they need to learn how to keep up for their own good and for the good of those who depend on them
- Avoiding the deficit model approach (“this is where you are, and this is where you should be, so here is how much you have to catch up”)
- Creating a safe and comfortable environment for learning
- Validating the knowledge and experience that learners already have and demonstrating that the trainer is a facilitator, not an instructor—the trainer does not have to be the expert, and the learners can help and learn from each other
- Being known by the company and its employees and being willing to learn the culture and needs of each work site
- Being able to relate to employees and vice versa—not being judgemental
- Having expectations of employees—letting learners know that improving their skills is a reality they need to come to terms with
- Knowing the trainer’s boundaries—the trainer is not a counsellor and has to know when to refer people to a counsellor
- Being able to relate the employability skills that are being developed to workplace or domestic tasks—starting with what learners feel they need to know for their jobs or with real challenges they are facing in their lives (e.g., understanding the concepts of principal and interest when taking out a car loan)
- Being able to draw on learners’ experiences and integrate new information with what learners already know
- Being able to point out opportunities for learners to apply their knowledge in work, home and community settings
- Being able to facilitate classes in makeshift learning environments
- Treating participants’ academic information as confidential
- Being able to deal with people at all levels within the workplace
- Being able to create unique facilitation approaches geared to the needs of individual learners
- Being able to help individual learners set learning goals and adapt workplace materials to meet their specific learning objectives
- Being open to any learning approach and involving learners in diagnosing their own learning needs, setting their own learning goals, developing their own learning plans and monitoring their own learning progress
- Showing learners that their opinions count by taking action on their suggestions and encouraging them to speak up
- Knowing when something is working and what to do if it is not
- Making themselves available according to the workplace schedule—employees cannot afford to take time off work, and companies cannot afford leaves of absence for training
- Attending training sessions with other trainers to share effective practices
- Giving adults confidence in what they are trying to learn
- Challenging learners on the basis of their successes—when somebody gets an answer right, they can be given more difficult tasks or asked to help other people

- Recognizing and praising every step learners take
- Making sure people who say they want to learn really do want to learn—have they asked for a raise and are they willing to “pay” for it by learning?
- Listening to learners—they have the right to veto something you think will work if they do not like it

Keys to Success for Business

- Partnering with other groups to make workplace education happen
- Fostering a learning culture at the company
- Valuing employees and showing a commitment to them
- Providing in-kind services such as time off, space, administrative services and materials for learning

Benefits for Employees

- Gain self-confidence and believe they are more capable—one employee bought a house; another wrote an essay to win a computer
- Feel more important and have more options in the world of work
- Accept suggestions for personal improvement more readily
- Explain themselves better and speak up about things that matter to them in the workplace and in their community
- Show more initiative and take more pride in their work—work independently, do things that need to be done without being told to
- Become more innovative—think of and develop new possibilities
- Arrange tasks and materials and work in an orderly way
- Learn how to work better as a team and build friendships with co-workers
- Become better at recognizing and solving problems and make better decisions at home and in the workplace
- Become more adaptable and able to accept new challenges
- Read, understand and follow work orders and directions quickly and

accurately—without having to be shown what to do

- Learn about the business while enhancing their employability skills
- Know the products they are making and what they are used for
- See the value of education and take responsibility for their own learning
- Develop the foundation for further education and training—take advantage of other learning opportunities, including pursuing Grade 12 equivalency and further education
- Become better able to help their children with their homework and have higher academic expectations for their children
- See that they have better chances for promotion

Benefits for Employers

- Achieve increased plant efficiency and productivity
- Have better workplace safety—workers learn about the safe operation of all equipment, not just the machines they use
- Can deploy workers from one work station to another, which enables cross-training
- Develop stronger rapport with employees
- Can reduce waste
- Achieve better quality and customer service
- Can introduce and use new technology successfully
- Experience reduced re-work and warranty costs—a single belted chain can cost \$10,000, and repair work is expensive and time-consuming

Achievements

- Duraschool students developed a dictionary of terms to help acquaint new workers at Durabelt with the terminology used in the workplace
- Several Duraschool participants got their GED; another, whose first language is not English, plans to take

Employees gain self-confidence and believe they are more capable. ►

Employees feel more important and have more options in the world of work. ►

Employees become more innovative—they think of and develop new possibilities. ►

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Recycled paper

- his Grade 12 equivalency exam again
- One learner is attending the local community college for trades training
- Employees are rewriting the employee

- handbook to make it easier for them to follow and use
- Employees put the annual performance appraisal forms into plain language

NBEC Publications Relating to Employability Skills Development and Assessment

Employability Skills 2000+

Employability Skills Toolkit for the Self-Managing Learner

Science Literacy for the World of Work

Understanding Employability Skills (Apr. 99)

The Economic Benefits of Improving Literacy in the Workplace, 206-97 Report.

Enhancing Employability Skills: Innovative Partnerships, Projects and Programs, 118-94 Report.

Linking Teachers, Science, Technology and Research: Business and Education Collaborations That Work, 144-95 Report.

1999-2000 Business and Education Ideabook

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