

EXPLORING HUMAN RESOURCE SOLUTIONS

A NARRATIVE REPORT ON POTENTIAL
COLLABORATION BETWEEN BUSINESS,
INDUSTRY AND POST SECONDARY
EDUCATION

Business shapes the future of education by determining the training needs of both the existing workforce and new hire skill requirements—for today and in the future.

It is only when we (business and educators) are totally committed to working together in a co-operative approach that we will successfully shape the future of our employees, our business and our workforce.

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Kathryn Creeden

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INTRODUCTION

The goal of this report was to complete a preliminary study that explores the question “Do you feel business and industry have a role to play in post secondary education?”.

This report is not intended as a comprehensive document representing the opinions of all commercial and industrial sectors in the City of Brantford and surrounding areas. It is however, a narrative summary of information gathered in an informal setting with input from various sectors.

Portions of the information gathered affirms what we already know in relation to skills, skill shortages and education/training gaps. However, in addition to identified challenges, the report contains suggestions on how to reduce the skills gap and prepare our workforce for both current and future opportunities.

This report should not be viewed as a comprehensive or detailed list of identified skill shortages and/or requirements. It will, however provide a summary of those skills that collectively were identified as having a significant level of importance for new hires, co-op/practicum placements and candidates looking for career advancement.

Training and education, preparing our workforce...this is NOT about entry-level positions. This is about re-skilling and increasing the knowledge of the entire workforce from front-line workers through to senior levels of management.

What is extremely evident is the willingness of business and industry to work together with educators and trainers, to prepare for the challenges that face us in the future.

In light of the anticipated baby boomer retirements over the next 6-10 years, coupled with lean manufacturing and streamlined operations, this is our golden “window of opportunity” to prepare for the inevitable.

What was especially interesting throughout the process of gathering the information is that the data does not simply focus on skill shortages in relation to new hires and graduates. This report also highlights the need to groom our existing workforce for future challenges and requirements—promotions and transitions that will open new opportunities within a wide variety of sectors.

Although the primary question regarding the role of business and industry with post secondary education prompted initial input and discussion, substantial information was gained regarding supplementary issues, challenges, barriers and suggestions for strategies. These supplementary issues included:

- Employer awareness and knowledge of post secondary education in relation to Human Resource strategies
- Current and projected Human Resource deficiencies and challenges
- Employer participation in the education process to address current and future skill requirements and shortages

The overwhelming majority of participants identified that, through collaboration, solutions and strategies can be developed and implemented—strategies that will bring together the unique insight of;

- Business which brings the expertise regarding skills and knowledge requirements and provides jobs and training for workers
- Public educators who are aware of skill requirements and respond to them
- Individuals who invest in education and skills throughout their lives

It is our hope that this report will be a catalyst to a proactive partnership between business, industry and educators that will assist in providing a well trained and skilled workforce to address current and future Human Resource requirements.

There has always been a division: school is school and work is work. It is time to bring school into the workplace and the workplace into school!

Throughout the document, various comments obtained through the roundtable discussions have been highlighted. These comments contained in boxes are direct comments that reflect the opinions of the majority of the respondents.

The information gained will help to further shape the vision and evolution of post secondary education—a unified approach to a significant investment in the success of our workforce and in the success of business and industry. It is vital that we acknowledge that everyone (government, educators, industry and the workforce) is closely linked and interdependent—and collectively we can be the driving force to proactively solving Human Resource deficiencies from initial career pathing through to training a highly skilled and qualified workforce.

Human Resource challenges have progressed far beyond entry-level positions in most sectors—the respondents were very definitive—blending of college and university programs from front line through to senior and executive positions will be the key to meeting increasingly complex skill demands.

It is extremely import to note that AT NO TIME was it implied by any of the respondents that an integrated strategy with educators would absolve an employer from committing to, and investing in, training for their employees. Rather, the discussions were focused on how we can work together to adapt, improve and expand our capacity to create a well-educated, knowledgeable and skilled workforce.

METHODOLOGY

The information presented in this report was obtained through discussions that explore the role and potential integration between business and industry and post secondary education.

Participation in the discussion was not limited to a specific industry or sector. Representation included; companies ranging from 3 employees to over 500 employees; industries from digital media, printing, service, manufacturing, distribution, consumer products and health care; local, regional, provincial and national associations and organizations representing various sectors.

The intent was not to administer a statistical survey, but conduct informal discussions through a roundtable format and provide a summarized narrative on the thoughts, opinions and ideas presented by area employers regarding whether they felt that business and industry does play a role in post secondary education and what they believed that role is or could be.

The role of the facilitator was not to agree or disagree, justify or explain any of the information obtained. Rather, the findings in this report are presented as they were obtained and discussed.

The goal was to capture, as accurately as possible, impressions, opinions and ideas that will shape the future of our workforce. To achieve this goal, it was important to document all opinions expressed, whether the comment was made by an individual or validated by a group.

Comments and opinions from previous group and individual meetings were presented by the facilitator throughout the process to validate some of the issues and ideas that were already identified through previously conducted community surveys or presented during the roundtable discussions.

“The Six-Year Window of Opportunity”, a report drafted by the Brantford Centre Office, was also presented throughout the discussions. This report summarized current information sourced through various studies and skill surveys conducted by agencies and organizations in Brantford and Brant County. Specifically, this summarized information highlighted both practical and competency based skills shortages in the workforce. (NOTE: *to receive a copy of this report feel free to contact the Brantford Centre at (519) 754-0817 or brantfordcentre@bellnet.ca*).

It was through this validation strategy that we were able to identify key skill areas that had a significant level of importance for Human Resources. This process of preliminary exploration was enhanced by compiling suggestions and ideas that would assist in addressing current and projected Human Resource deficits.

Throughout the individual and group discussions, respondents were also asked specific questions regarding; training including specialized or unique training needs; the willingness to participate in a collaborative strategy; and where they believed post secondary education could be of most benefit to their organization.

A STARTING POINT

The following questions were presented to individuals participating in both group and individual discussions.

1. Would you be willing to commit to participate in regular meetings to identify, summarize and present issues your company and/or industry encounter, with which post-secondary education may be able to assist?

This question was met with a resounding yes! The vast majority of responses indicated that not only were they willing, but they felt a strong, almost mandatory, obligation to provide input and become actively involved.

When asked to expand on this information, the primary response was “if we truly want to succeed, we will need a skilled and talented workforce...that requires strong collaboration with the educators and trainers in our community”.

Challenge: Increased Employer Participation – Advisory Groups

During discussions regarding the willingness to participate, most indicated that there is some hesitation, in many cases, due to past experience. In general the greatest concern or condition would be that these regular meetings would result in tangible and implemented action plans that would address the concerns expressed and identified during these meetings.

There was a general opinion that throughout the years, employers have participated in various surveys, forums, discussion groups, both on an as-needed and/or regular basis, but did not (a) receive feedback from the information provided or (b) did not see tangible action plans as a result of the input.

Solution: Put the Plan into Action

One individual stated it quite clearly *“I know that I need to come to the table if I want to make a difference. However, this is a two way street and the trainers and educators need to be willing to work with us to make this happen.”*

2. Do you believe that information regarding training / skill requirements are best gathered from (a) associations representing a specific sector (b) individual companies within a specific sector (c) discussion that involve a cross section of representation from numerous sectors.

All respondents who indicated “associations representing a specific sector” also indicated “Individual companies within a specific sector”.

When providing additional information it was generally stated that while associations may have a good understanding of issues on a regional, provincial or national level, individual companies have a better understanding and first hand experience of issues encountered on a local level. The representation from both levels would allow a combination that would address immediate and future local needs, in addition to sector concerns as a whole.

What was especially surprising however is that over two thirds of the respondents indicated a preference for discussions that involve a cross section of representation from numerous sectors.

Many respondents indicated it was due to a shift in focus to general employability skills versus industry specific skills. The consensus was that the employability skills are “universal” to all sectors, and more importantly spanning all levels within an organization, front line through to senior levels of management.

Some specific examples provided regarding universal skills included; communication, customer service, critical thinking, problem solving, project management and prioritizing. If, for example, an individual has these skills and is hired by an organization, their opportunities for advancement would be greatly enhanced, and these skills would provide the individual with flexibility to adapt to numerous positions. Simply stated in one group “*they are a greater asset to my organization and will have more opportunities for advancement and lateral movement*”.

Management and Supervisory training were also mentioned in relation to what is universal. Full consensus was that the skills needed for management today span all industries and all levels of management. From customer service through to project planning and senior executive management, there is a level of fundamental skill and expertise required to be an effective manager or supervisor.

3. Indicate which, in order of importance, that you feel post-secondary education can play a role:

Entry level

Front line

Middle management

Senior management

Specialized occupations and/or services (with examples)

The following summary identifies those areas that were listed as the top three choices. The vast majority of responses were in senior, middle management and specialized occupations and/or services.

However, under the specialized occupations and/or services some rankings indicated skills as being a priority that apply to all levels within an organization.

These skills included;

- Communication
- Material Resource Planning
- Social Skills
- Leadership Skills
- Prioritizing
- Problem Solving
- Critical Thinking

Over two thirds of the respondents indicated skills as being a priority in all levels of their organization from entry level through to senior and executive positions.

Examples provided for specialized occupations and/or services include;

- Technical Sales/Marketing
- Technical Trades / Skilled Trades
- Design-metal
- Package / Graphic development
- Press Operators (specific training for various segments of graphics)
- Information Technology
- Accounting
- Human Resources
- Health Care/Long Term Care
- Purchasing
- Project Management / Time Management / Prioritizing
- Communication
- Leadership
- Practical Job Skills / Business Ethics / Office Politics

4. Does your company and/or industry have unique training needs?

An attempt was made to identify company and/or industry specific training that may result in a universal training need that spans numerous companies and organizations. The following list indicates examples of those needs that encompassed various industries and sectors:

- Protective Equipment
- Good Manufacturing Processes
- Packaging
- Supply Chain
- IT - Web
- IT - Specialized Systems
- Customer Service
- Sales & Support
- Off shore documentation and paper flow (import/export)

The following list indicates those needs that were specific to a particular industry or sector:

- Design – structural, light metal, packaging, graphic, construction
- Statistical Process Control
- Thorough knowledge of printing process (Roto, Flexo, Litho printers)
- Press Operators
- Robotics
- Technicians – mechanical, dairy, fabrication
- Elder Abuse
- Mechanics
- Geometric dimensioning/tolerancing
- Consumer goods

UNIVERSAL SKILLS

The discussions highlighted some foundation or universal skills that area employers deemed critical to the success of new hires, placements and the workforce in general.

These skills are a combination of attributes and knowledge that will lead to the overall success of a candidate. They are the skills that will enhance the performance of the individual, in addition to assisting the candidate in meeting or exceeding employer expectations.

It is important to note these general employability skills need to be promoted throughout the entire education system. In some cases it was clearly evident that “a short training session” simply would not be sufficient. These are life skills that need to be taught and practiced consistently throughout all levels of training and education.

ATTITUDE

It's unanimous! Attitude will make or break the success of any candidate. Whether they are sourcing a placement, looking to secure employment, or looking to advance within an organization, attitude is a major determining factor.



The goal was then to better define what the “right attitude” really meant from the employer perspective. It came down to one primary attribute—willingness. A person with the right attitude has the willingness to:

- Take responsibility in what they learn and how they learn it; to form a partnership with the company that relies on two way communication
- Take responsibility for what they do and how they do it; from maintaining a can do work ethic to understanding the importance of productivity, quality, and the impact of wasted resources (human and/or material)
- Be adaptable to various responsibilities, even though it may not be directly related to their primary career focus
- Always do their very best; to respond, as the need arises, to challenges faced by the company during unusual or extenuating circumstances
- Stretch past their current abilities; to see beyond what is to what can be
- Work towards exceeding bare minimum standards and expectations
- Increase their intellectual capital and in turn, their value as an asset to the company



It was further suggested that if a candidate has the right attitude, multiple other attributes naturally occur including; eagerness to learn, positive work ethic, commitment and focus.

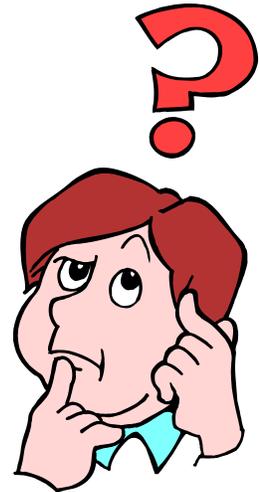
Attitude is not something that can be trained, but it is something that can be mentored by others with experience and influenced through peer pressure.

PROBLEM SOLVING/CRITICAL THINKING

This was another universal requirement that spanned numerous occupations and industries. The ability to;

- think through a problem
- source information related to the problem
- assess and eliminate probable causes
- assess and eliminate potential solutions
- decide on the best course of action
- implement and monitor the plan of action

Another part of critical thinking involves establishing a 'risk threshold'. In most cases, problem solvers and decision makers know how to utilize past history to assist in making a good decision or determining a viable solution. However, the key challenge occurs when there is no past history and the person is required to make a critical decision. The best example provided was in relation to sales and support. Although employees may have a good understanding of their authority when dealing with a customer, they need to have an appreciation and understanding of how to determine what is 'acceptable risk' for an organization.



Again, it was stressed that this is a thought process and not something that can be accomplished in a single class or term. Critical thinking and problem solving are skills that need to be introduced in education as soon as possible and reinforced, throughout the education process, through theory and practical application.

It was suggested by the vast majority that the best method for developing problem solving/critical thinking skills is through coaching and mentoring. The best problem solvers and critical thinkers are those that have learned through real life situations and experience. Encouraging sharing of this real life situation and experience would provide the needed link between theory and practical application.

"The level of problem solving and critical thinking is becoming increasingly complex" was a statement made by numerous respondents. Perhaps the best example provided was in the area of technology and computerized systems:

As our systems are becoming more advanced and complex, the skills required in resolving issues surrounding; network security, system deployment, software testing, new roll outs and network administration have reached a level of complexity never experienced before. These systems are critical to the day to day operations of business, and the ability to troubleshoot and correct the issues will have a direct impact on the success of our company.

ADAPTABILITY & FLEXIBILITY

It was identified that both adaptability and flexibility are directly influenced by attitude (willingness). It was stressed again, that information can be presented and discussed on how to be adaptable, but unless candidates have first hand experience, they simply do not truly appreciate what it means in the workplace.

A comment reinforced throughout the discussions was; *“what is expected of students in a learning environment (school, practicum or co-op) appears to be substantially different than an actual employment situation (one individual asked “is it possible to fire a student?”)*”.

However, it is also important to note that there was a general consensus that there is room for both the adaptable/flexible employee in an organization in addition to the employee who thrives on learning or doing a single task or series of tasks. Further, not only is there room for both, but it was suggested that the two types of employees balance one another in the workplace.



PROJECT MANAGEMENT

Project management was identified simultaneously with problem solving and critical thinking. Further, this skill was identified as a critical requirement for all positions within an organization. Although many respondents indicated that this skill was one traditionally associated with senior levels of management, there has been a definite shift in requirements, expectations and responsibilities. Project Management is an asset in the workplace at all levels.

When expanding on project management skills, the primary concern was that the employee has both understanding and practical experience in managing projects, regardless of whether they are large or small. Specific skills required for project management included:

- Understanding the process and method of taking a large project and breaking it down into smaller activities and outcomes
- Establishing activities and outcomes that are realistic and achievable
- Being able to establish guidelines
- Setting realistic and achievable timelines
- Establishing and monitoring benchmarks
- Ensuring the project is kept on track
- Monitoring of progress based on benchmarks and timelines, and implementing corrective actions as required

It was further noted that project management must be presented in conjunction with the ability to work with and motivate a team to accomplish the objectives. The primary team skills identified included:

- Motivation towards established objectives
- Recognizing and utilizing the strengths of the team members
- Communication & Facilitation
- Conflict prevention and management
- Avoiding misunderstandings and perceived threats within the team.

CUSTOMER SERVICE

Customer service was deemed CRITICAL across all industries and all positions. The application of customer service spanned beyond dealing with external customers, and incorporated the 'internal customer'. This is perhaps best highlighted by Chrysler's Customer First training philosophy, which states, "The first customer is your co-worker".

Customers are not an interruption in your day...they are the reason for your day

The traditional view of customer service is a thing of the past! It was repeatedly stressed that good internal and external customer relations will determine the success and potential growth of an organization. It was generally felt that customer service is the driving force behind:

- The public image of a company or organization
- The overall reputation of the company or organization
- How the company is perceived by the general public
- The success and growth of the company or organization.
- Establishing a solid reputation in the local community, a strong contributing factor to being a "company of choice" for new hires
- Soliciting and gaining new accounts on a local, national and international level

Customer service has expanded as all employees, during their term of employment are required at some point, to:

- Represent the organization
- Interact with all divisions/departments
- Interact with substantial numbers of internal customers (employees)
- Demonstrate their knowledge of the organization and product/services

It is important to note that customer service was suggested to be a key component in career advancement. Numerous skills utilized in customer service are foundation skills to leadership and management. Specific occupations that were mentioned include: service managers, sales managers, customer support leaders.

Again it was reiterated that customer service training is a way of thinking, problem solving, acting and reacting to people and situations, and this is not training that can be learned in one semester or one year. It needs to flow through the entire education and training process and ensure the opportunity is provided for the individual to progress into advanced levels of problem solving and critical thinking.

Customers are like an elephant. They never forget nor do they forgive when they have been mistreated

The general skills attributed to a customer-focused individual include:

1. Communication
 - Listening skills
 - Questioning skills that are highly analytical
 - Appropriate verbal communication and presentation
 - Taking detailed notes; summarizing data and writing reports
 - Business correspondence (internal and external)
2. Critical Thinking / Problem Solving
 - The ability to analyze and resolve a variety of complex scenarios
 - Determining the need and/or issue
 - Assessing the situation
 - Analyzing solutions with appropriate alternatives
 - Assessing acceptable “risk”
 - Planning a strategy
 - Decision making and implementing the strategy
3. Prioritizing
 - Follow up and follow through
 - Taking ownership of the problem
 - Maintaining high levels of integrity (carry out what was promised)
 - Measuring progress

A ‘Spin’ on Service

Primarily in industries where employees are providing a service, it was stated that effective customer service requires the employee to have an appreciation and understanding for the clients to whom they are providing the service.

This appreciation and understanding is achieved through practical experience. The training and education received needs to incorporate a strong focus on;

- How to interpret customer needs
- Making appropriate suggestions and recommendations
- Respecting the vision of the customer (whether you agree or not)

The best example presented related to graphics and design. An ideal candidate would have exposure to multiple industries. This in turn would allow the employee to better understand and appreciate the requests they receive from customers, and most importantly, provide designs that are relevant and suitable for the particular industry.



COMMUNICATION

Communication was another skill that was unanimously highlighted as a critical skill that spans all positions, all industries and is vital to the success of an organization. The input gathered highlighted the need for advanced skills in written and verbal communication in addition to candidates being able to effectively prioritize multiple forms of communication (email, voice mail, pagers, faxes, memos, meetings, conferencing, and video conferencing).

Communication was identified as a mandatory requirement for the success of:

- Promotion and growth of a business
- Productivity, quality and efficiency
- Strong customer relations
- Strong employee relations
- Enlisting internal co-operation and support
- Determining and achieving standards and expectations (internal and external)
- Effective sales and marketing
- Research and development
- Disputes, grievances, legal actions
- Respect, trust, inspiration

Specific Training Needs

- Verbal Communication
 - Listening, analytical questioning
 - Speaking, language, articulation, vocalization
 - Researching, compiling notes
 - Establishing criteria, setting agendas
 - Presentation and facilitation
 - Creating the presentation (use of technology and print media)
- Written Communication
 - Researching, compiling notes
 - Establishing level of detail and information required
 - Articulation
 - Compiling and distributing; reports, letters, memos, correspondence
 - Proofreading
- Addressing multiple forms of communication
 - Prioritizing
 - Organization
 - Effective use of various media
 - Follow up and follow through



And they say that technology will make life easier?

SAFETY & WORKPLACE HAZARDS

A general consensus of all industries and sectors is that candidates are not prepared for, knowledgeable in, or aware of the practical understanding of safe work practices and identifying workplace hazards.

The examples provide were far ranging and varied from industry to industry. However, in all cases, it was stated that although the employee had received training in, for example, WHMIS (internal or external), they still did not have a grasp on how to relate or apply it to the day-to-day work environment.

Safe work practices encompassed a wide variety of issues from chemical use, through to handling print cartridges, from storage procedures through to materials handling and equipment operation.

The majority of employers expressed a desire for candidates to have a general appreciation and first hand knowledge of safe work practices and workplace hazards. The consensus was this would in no way absolve the employer from completing the custom in-house training, but they hoped that with a general appreciation the candidate would more readily be able to apply it to their own working environment.

The safe work practices also included a basic knowledge and understanding of ergonomics. Regardless if it is material handling, working in an office, or providing a service, safe and correct practices concerning lifting, understanding the causes and ways to prevent repetitive strain injuries were cited as two key examples of safe work practices which all candidates should be aware of.

SKILL DIVERSITY

Although not a specific single skill, a universal characteristic required of all employees today is the need to have a diverse combination of skills. This skill diversity is critical to the success of the business, the individual and the organization or company. Having a single focus or talent, even at an expert level, simply does not fit in well with the requirements of today's global competitive environment.

There were several examples provided in relation to skills diversity, and the need to 'blend' skills and abilities. The following is a synopsis of specific examples:

- Machine Operators need exposure on how to operate various types of machines. Their skills diversity needs to include; preventative and ongoing, maintenance, making basic adjustments, troubleshooting etc. The ideal is a combination of operator and technician
- A technical sales person needs the technical background combined with business management
- Designers need the practical hands on design with real projects combined with critical thinking, problem solving
- Managers need the technical knowledge and skill combined with the people/communication/problem solving skills

BACK TO BASICS

There was a surprising level of input received regarding the current lack of, and need for extensive training, in basic skills relating to the workplace. The input received was a result of direct employer experience involving new hires and placements from high school through to post secondary institutions, including post graduates.

The overall perception is that there is a lack of knowledge and demonstrated understanding of workplace fundamentals. It was identified that the lack of these identified skills has a direct impact on;

- The success of the candidate (new hire or in-house advancement)
- The reputation of the company or organization
- The level of teamwork and co-operation within the workplace

The following is a synopsis of the skills most often identified during the discussions:

1. Conduct

- How to act in the workplace with; co-workers, supervisors and customers
- Differences between a unionized and non-unionized environment. The impact of rules, policies and procedures in both environments
- Office protocol; basic do's and don'ts
- Harassment (up to and including emotional harassment), what constitutes harassment, how to act and react, incident reporting
- What is appropriate language in the workplace
- Attendance/punctuality; the overall impact on co-workers and the organization
- Social skills – socializing with others (internal and external), what may be considered offensive, appreciating and respecting cultural differences

2. Personal Appearance

- What is appropriate attire in the workplace
- The importance of personal hygiene and overall appearance
- Presenting the all important first impression to external customers
- When does personal expression not fit in with the organization

3. Common Sense to Working Safely

- Working safely in all environments. This expanded beyond manufacturing into all areas of employment including office work, warehousing, distribution, service, support services
- Creating and maintaining the safe work environment
- The impact of ignoring safety rules and regulations

4. Expectations as they relate to productivity, profitability

- Better appreciation of how business is conducted, and what impacts success
- Challenges faced due to global competition
- Understanding their individual, and team, impact on profitability

5. Respect

A general consensus of all industries and sectors is that respect within an organization impacts everything from productivity, creativity and quality through to morale, commitment and dedication.

In an attempt to define respect and provide clarity, the following points were determined:

Respect for

- People (common courtesy, valuing differences)
- People's time (prioritizing)
- Property (co-workers and company)
- Opinions (diversity, compromise, collaboration, consensus)
- The work environment (safety, health, organization)

To address the identified points, it was suggested that training in the following would be invaluable:

- Cultural sensitivity
- Personality styles/typing
- Prioritizing
- Facilitation techniques
- Individual and team decision making
- Physical / emotional well being and health
- Understanding business practices and costs
- Occupational Health & Safety
- Delegation
- Right to Privacy

MANDATED TRAINING

Depending on the industry there exists foundation training that is either mandated or crucial to the overall success of a candidate. Specific examples provided included:

- Workplace Hazardous Materials Information System (WHMIS)
- Occupational Health & Safety
- Hazard Analysis Critical Control Point (HACCP)
- Good Manufacturing Processes (GMP)
- Material Requirements Planning (MRP)
- First Aid
- Confidentiality (privacy laws)

Again, although there is in-house training provided in the above areas, input from the majority of respondents was that if candidates had an appreciation and understanding of these components and their practical application to various situations, it would provide the candidate a competitive edge in the hiring, training and advancement process.

Challenge: Timely Training for Legislative Compliance

Two issues identified as being major challenges were;

- Being familiar with, and keeping abreast of, legislation and the ongoing changes
- Providing timely in-house training to new hires

It was generally identified that providing in-house training for one or two candidates in a session (for example WHMIS) simply is not cost effective for a company or organization.

Solution: Structured Learning Terms for Critical Modules

One suggestion was for the educational institutions to structure their courses so critical modules for full time students could be accessed by employees requiring upgrading. By providing employers with dedicated time and days for these critical modules, the opportunity exists for the employer to adjust the employees schedule and have the employee complete the course at the post secondary institution (for a fee).

It was stressed again however, that any training provided needs a substantial element of interaction and hands-on application. One suggestion was for WHMIS training to have a special room for students to go through and identify the various hazards and how to eliminate them.

Another suggestion involved small groups of students going on-site to a business. The students could complete a preliminary 'walk-through' study; making notes on issues they perceive to be a safety issue. These small groups of students would then be required to compile a report and make a presentation to the president or CEO of the company outlining their safety observations.

PREPARING FOR BABY BOOMER EXODUS

There are numerous challenges associated with training a future workforce to address the anticipated mass exodus of the baby boomers due to retirement.

- *We simply cannot afford, in today's highly competitive environment, to take on employees today to groom them for positions five to ten years down the road.*
- *Jobs that exist today may not even exist in five to ten years. With the advances in technology and automation, a semi-skilled machine operator today will be a materials handler in the future.*
- *There are some positions that no amount of training will replace the specialized skill and knowledge the current employee possesses. It will be these positions that we will tend to focus on, as this level of knowledge is critical to the future success of our organization. This is very specific knowledge the current employee has gained from years of experience, and on-the-job exposure to various situations and challenges.*
- *The solution is to make an investment now, to work in conjunction with trainers and educators so that future candidates will be a more skilled and knowledgeable worker.*
- *As employers we hope that future candidates will be more extensively trained and experienced. It will not absolve us from our commitment to providing in-house training and opportunities. These future candidates simply will need to have skills far beyond an introductory level.*
- *Over the next five to ten years we are pursuing strategies to redeploy the skills of our current workforce. This may result in the redesign of some positions and more extensive use of technology and automation.*

Everyone participating is aware of the looming retirement population. What is clearly evident however is that not one respondent could identify a clear strategy to address this exodus of knowledge.

Part of the problem identified is that business today is constantly changing and evolving, making it increasingly difficult to project needs three, five or ten years in the future. Couple this with the need to remain extremely lean and competitive, it was suggested that the substantial resources required to plan and execute a strategy are not available, and the commitment to the strategy process may end up being futile.

How do we prepare for these upcoming retirements without having to fill them immediately?

Past practices dealing with random or intermittent retirements have been successful and employers were able to accommodate these retirements. However, in one particular case approximately one half of the workforce is anticipating retirement within the next 10 years. This loss of knowledge is overwhelming and no strategy has been identified as being viable to accommodate this.

Challenge: Grooming the Existing Workforce

Many of the respondents have indicated that they are actively grooming the existing workforce to expand the knowledge and expertise to accommodate for retirements. However, one critical barrier is that some senior employees either (a) are not comfortable with the coaching and mentoring process or (b) feel threatened by sharing their knowledge with junior employees.

Solution: Provide Training in Coaching & Mentoring

It was expressed that senior employees and senior levels of management require training in how to plan, implement and monitor strategies for coaching and mentoring junior employees.

Employers openly admitted that they often assumed that these senior employees and managers know how to effectively coach and mentor, and were often surprised at the lack of knowledge and lack of success.

It was further stressed that the training needs to incorporate information and counseling to the senior employees and managers on; the letting go process; establishing trust and openly sharing information without feeling threatened.

Challenge: Skills Re-deployment

Especially when discussing employees who have a specialized or unique expertise and level of knowledge, employers realize that this heightened level of skill will not be replaced quickly or easily.

Solution: Part time Opportunities

Some employers have indicated that they have already approached employees who are retiring within the next five years, and asked them to continue their employment on a contract or part time basis to help them over the critical transition period.

Challenge:**Research to Reduce Costs**

One very popular issue discussed was the role of post secondary education in research. It was generally felt that it would be to everyone's advantage if post secondary institutions would be actively involved in research that would identify potential means and methods of saving money and reducing operating and labour costs.

Solution:**Introduce Research into Programs**

Trying to remain competitive in a global market was an issue identified throughout the roundtable discussions.

It was generally expressed that no single company has the time or resources to dedicate to sourcing improved methods and/or streamlining of operations. Participants did indicate that they are aware that they are caught in the vicious circle—they don't have the resources to dedicate to this research—but they also realize it will be critical to their continued success.

One suggestion was that post secondary education could be actively involved in this research. One example used was in relation to manufacturing. If, for example, the college was offering a program in advanced manufacturing concepts, then perhaps a division could be created that would be dedicated to researching cost effective means of streamlining and staying competitive.

The general consensus was that the post secondary institutions would have access to a vast network of suppliers of equipment, software, technology and automation from a wide variety of sources. By working directly with these suppliers, the research division could assist in identifying the most cost effective technologies and software available and complete an objective comparative on the latest and greatest.

This suggestion was further explained using another example in the area of leadership and human resources, especially at the university level. As productivity has a direct impact on labour costs, then the university could create a division to research the issues impacting productivity ranging from work environment to motivation. The goal would be to identify proven methods of achieving high productivity from your employees, and compliment this by providing courses that instruct people in what these methods are, and how to implement them.

CONTINUING EDUCATION - MANAGEMENT

Due to company growth, retirements, natural progression or natural abilities, numerous skilled and semi-skilled workers have been promoted to supervisory, middle and senior management positions. Although these individuals have strong technical experience, they often lack the people, social and supervisory skills.

Companies continue to want to invest in their employees and are solidly behind retraining and skills upgrading (includes front line through to senior levels of management). These companies firmly believe that this investment in their workforce is what will help them remain competitive and efficient.

There is a need for strong industry input into the curriculum of supervisory training to ensure it is current, relevant and practical. The advantage needs to be twofold, (a) to develop staff and (b) provide them with credits towards a recognized diploma or degree that will allow them to progress in the future.

Key areas were identified as being the foundation for a good supervisor, and also as the areas that present the most substantial weakness in internally promoted supervisors. These areas include:

- Conflict management and resolution
- Communication
- Decision making
- Compliance (i.e. ISO, health and safety)

The statement supported by all respondents is that short, 3-hour courses are NOT the answer. Training needs to have the dedicated time to allow the students to try ideas presented in the class, share their successes and failures with other students, and gain the confidence required to be a truly successful manager.

Challenge: Dealing with Critical Employee Issues

It was pointed out that every manager and supervisor is exposed to dealing with critical employee issues; discipline, grief, and addictions to name a few. Although the manager may be referring the employee to an Employee Assistance Program, there is still the initial contact with the employee and the problem.

Solution: Counseling Course–Employee Relations

Provide training in programs that will equip supervisors and managers with an understanding of how to counsel employees. It was NOT suggested that a manager attempt to replace the role of a professional counselor, rather they know how to react to crisis and/or difficult situations and what resources are available that they could suggest to the individual to assist them with their crisis.

Challenge:**Availability of Training**

Employees are attempting to maintain a healthy balance between family, work and continuing education. This combined with varying / longer shifts and commutes (if they have a vehicle) often makes accessing management and supervisory training extremely difficult.

Solution:**Provide training locally or in-house**

There were two potential solutions suggested to assisting employees in continuing their education while they are employed.

The first solution was for post secondary education to offer more programs locally. Numerous respondents indicated that they anticipated with the university located in downtown Brantford, and the alliance between the college and the university, that there would be enhanced training opportunities provided on a local level.

The second solution was to be able to provide the training to their employees in-house. This solution evolved into two distinct avenues:

1. Post secondary institutions should be able to provide instructors that would allow the company to offer the training in-house, on-site.
 - It was stressed that the cost for this training must be reasonable and realistic
 - Many respondents indicated a preference for the institutions providing the training as they anticipated the training would result in a course credit towards a degree, certificate or diploma
 - Instructors would need to be flexible in order to accommodate operations that are often 24-7 with multiple shifts
2. Post secondary institutions should work closely with companies to bring "school into work".
 - This would result in employees receiving credit for on-the-job training and experience gained at the company, and this credit would again apply to a degree, certificate or diploma

When discussing this solution, it was pointed out that this solution would only succeed if the post secondary institution and the company committed to work together to create an educational and learning environment within the day-to-day operations of the company.

PROGRAM RELEVANCE

There was some discussion regarding the relevance of courses currently being offered at the post secondary level. Perhaps the best example was that of an Administrative Assistant. When the graduates search for employment they are often disillusioned by:

- The lack of employment opportunities for new graduates
- The need for relevant experience to apply to senior positions

Employers indicated that for the most part, they view an Administrative Assistant as someone who has substantial senior levels of experience in providing critical office support. This level of experience is something that is rarely seen in a new graduate.

However, these same employers indicated that they do have openings in front desk, reception and customer service. A graduate of an Administrative Assistant program is often disillusioned when interviewed for these types of positions. The majority of employers indicate that front line employees are usually the individuals that are groomed and/or promoted to Administrative Assistant positions. The senior positions require a solid understanding of the organization and the product or service it provides.

The end result is that employers openly acknowledged that they were not willing to pay Administrative Assistant wages to someone who is doing filing or answering the telephone.

Another key issue addressed was the lack of “foundation” skills for front desk/reception positions. When asked to clarify and identify the critical skills missing the following points were presented;

- Basic office skills (filing, data entry, correspondence etc.)
- Office protocol
- Office procedures
- Presentation (personal)
- Customer service
- Confidentiality

Another example provided regarding training relevance was in the graphics industry. Educators should establish and maintain close ties with the industry to eliminate occurrences where graduates have learned software that is not even used in the industry.

In this discussion it was openly acknowledged that no educator can provide training in all the custom packages and software available. However, as a great deal of software is similar in nature, the general consensus was to ensure the graduate had a strong understanding and practical experience in some of the more popular software packages. They stressed the need for the student not to become an expert in a particular proprietary package, but rather understand the fundamentals of a graphics package that they can apply to numerous other software packages.

EMPLOYER AWARENESS – POST SECONDARY EDUCATION

It was evident that employers who were currently participating in some level of contact with the post secondary institutions had a stronger and more complete understanding of the services, programs and courses available. Those with limited or no contact, were often pleasantly surprised at what was available, and admitted the lack of knowledge and understanding has prevented them from sourcing training for their employees and/or participating in co-op/practicum.

Challenge: Website of Educational Institutions

General consensus is that if an employer is looking to source training for their workforce, they find the websites of the various institutions very difficult to navigate. It was expressed that the website is designed for students, not employers seeking specific training. Generally, the employers may not know the name of the specific course or program of studies that will satisfy their training needs.

Solution: Dedicated Web Page & Search Engine for Employers

Employers would appreciate an 'employer specific' section on the website with a search engine that would allow them to search specific skills training. The results from the search would show the different courses that are appropriate to their training needs and applicable certificate/degree/diplomas the employees can achieve.

It was reinforced repeatedly that although providing the training is the primary concern, employers would like to ensure the course is applicable to a certificate/degree/diploma that will provide an equal benefit to the employee.

The most prevalent example given was 'Supervisory Communication'. They would like to type this into the search engine and be provided with a list of relevant courses with a brief, easily understood descriptor.

Challenge: Improved Marketing & Information

The senior workforce, often promoted from within, is leading and supervising the most valuable asset—employees. This is the driving force behind the employer request that post secondary institutions actively promote and sell their courses to business.

Take your lead from the private trainers. They are always in our face with the training they can provide...what they can do for us and our employees.

CAREER PATHING

It's unanimous!

1. More resources need to be dedicated to career pathing that should start early in education and continue through to post secondary.
2. Career Fairs are simply not sufficient to assist an individual in understanding and experiencing what is available in a particular occupation or industry.
3. Career Pathing needs to begin with some form of interest and aptitude testing that could be used by the student as a tool to guide or suggest potential occupations for them to research.
4. Interest and aptitude testing should be equally available to students and employees. Often employees may be underemployed and looking to advance their career or dissatisfied in the current career and looking for a career change. In either case the goal is the same—we need to ensure that everyone is pursuing careers that are well suited to their interests and aptitude.
5. Career Pathing has an equally important impact on employees within an organization—assisting them in pursuing opportunities that are well suited to both their interest and aptitude. All respondents in the groups indicated a high degree of willingness to make substantial investments in employees that show a natural ability or talent, to assist them in realizing their full potential within the organization.
6. Career Pathing needs to include FIRST HAND EXPOSURE in order to increase the success of the student choosing an appropriate career for them based on interest and aptitude.
7. Career Pathing is NOT a one-time activity. It needs to progress with the student as they move through their education. Career Pathing should be done in stages:
 - Initial introduction to various industries and/or occupations
 - Post graduation guidance—where can this take you
 - Introduction to specific occupations as they relate to various industries
 - Introductory to various occupations within a specific industry
 - Internship, co-op, practicum, pre-apprenticeships; ‘hands-on’ exposure to potential positions
 - Final decision to pursue specific occupation/industry
8. Business and industry need to commit to working in conjunction with the educators and trainers to identify mechanisms to enhance career pathing. Although career fair and career days may provide a good general overview it is only a preliminary step. Students need to have the opportunity to experience first hand, in the work setting, occupations and industries that are of interest to them PRIOR to the student deciding on an educational or training path.

There simply is not enough education and information provided to students to allow them to make an informed and realistic career choice. This is truly unfortunate as our experience has been that the more focus and interest a student has in a particular career, the higher the level of success they will achieve—personally and professionally.

There was an indication of a very positive experience by employers with candidates that have a chosen career path. Overall these students are more excited and dedicated to excelling in their field—this was experienced in both new hires and in co-op/practicum placements. Most notably was the high satisfaction from employers with co-op students from graphics and skilled trades (through Job Connect at Mohawk College).

Education and information need to be expanded—not only do students need education about various occupations and industries; they should receive information about the various opportunities within specific occupations and industries.

During the round table discussions we were fortunate in having the participation of co-op students. The feedback from these students is that educational institutions often do not provide sufficient information about where degrees/diplomas will lead to in the future. One particular co-op student indicated that in her initial research there was no information provided about what avenues she could pursue after obtaining her degree. She did graduate with a history degree and discovered that it was not practical and she could “*not do anything with it*”. She expressed her obvious disappointment that there was no “*after graduation*” guidance provided in her initial education research. Her decision was to return to post secondary and pursue Human Resources.

Challenge: The Parent Trap—Perception!

It was suggested that potentially one of the largest barriers to exploring and selecting a career are parents. Students are often discouraged from pursuing employment in factories, truck driving etc. It is often perceived that these are less skilled occupations and often are not valued.

Further, parents want their children to pursue post secondary education and will strongly encourage their children in that direction. In the case of one co-op student she indicated her parents simply wanted her to go to university, and that it didn't really matter what she took or where the degree would lead her—as long as she went to university.

As a result she was less than focused on career pathing and exploration and made a very poor career choice and, in her second year of university she transferred to another program that was of more interest to her.

Solution: Promotional “Atrium”

A suggestion echoed by respondents was the advantages of having a dedicated building or section within post secondary institutions, where information on multiple opportunities within an industry can be readily available. The information would have an ‘educational focus’ where students, employed, unemployed, and underemployed individuals, can research and see first hand, the various types of positions and opportunities in multiple industries.

It was further suggested that suppliers to industry could play a major role in these educational displays. Perhaps the best example is in the print and pack industry. Major suppliers such as Xerox, Kodak, Heidelberg could be approached to display their latest and greatest equipment, technology and processes.

The educational institution could provide information regarding training and skill requirements for various opportunities within the industry and the projected employment prospects.

It was identified that this is a win-win-win situation;

- The supplier has a means to educate future employees, both for the supplier and for the businesses that utilize their product or service
- The post secondary institutions would have access to the latest information directly from suppliers to the specific industry
- The students would receive information on current and evolving technologies and the skill requirements to address these technologies

WORK EXPERIENCE

It was unanimous that on-the-job experience is critical to the success of candidates for all positions within an organization; from office support through to management and leadership, from design through to senior engineers.

Consensus was that it is impossible to choose between the importance of theory and practical application—they are equally important to the success of candidates and to the overall success of business and industry today. Theory without practical (and vice versa) simply produces a less experienced and less qualified candidate and the candidates that achieved the highest success rate were those that had a balance between theory and practical application.

The rationale provided was that theory presents information and a ‘method of thinking’ whereas the practical was critical to learning how to think creatively and apply the information in a real world situation.

Everyone participating, including employers currently providing co-op and practicum placements and employers who were not providing these opportunities, agreed that there needs to be a higher commitment from educators and employers to achieve increased participation and collaboration in providing these critical co-op/practicum placements.

Challenge: Employer Knowledge of Planning

Perhaps two of the largest barriers to business and industry providing co-op/practicum placements is (a) lack of employer knowledge regarding the need and value of participation and (b) lack of employer experience in planning for a placement.

Solution: Coordinators

Primarily in small to medium size companies, there was a lack of knowledge regarding the existence of coordinators that assist with co-op/practicum placements.

What was stated however is that it is vital for these coordinators to continually remind employers of the importance regarding an ongoing commitment and participation to expanding the skills and education of both the current and future talent pool.

These coordinators should be well-versed with the industry and would be an active liaison, dedicated to assisting employers with (a) needs analysis to determine where placements may be the best fit and (b) planning to not only accommodate the placement, but ensure the placement receives career relevant training.

Challenge: Confusing Terminology

Co-op, practicum, placements, internships, apprenticeships...there was an indication that there exists a general misunderstanding or lack of knowledge as to what, if any, difference exists between the various descriptors.

Preconceptions further complicate this misunderstanding. Many employers indicated that when industry and co-op are used in the same sentence, they automatically assume that the topic refers to apprenticeships within skilled trades.

Solution: One Page Marketing Handout

Provide a brief one-page outline with 'lay man' definition of each term, what it implies to the company in relation to paperwork, wage costs, insurance costs etc. In this one page overview include a sample listing of what occupations and/or skills are available for placements.

Ensure this information is also available on the post secondary website in a section that is easy to source and find. Highlight the key areas where co-op/practicum are available, and provide a telephone number and 'contact us' button to allow employers to request additional information.

Information provided should answer the following questions:

- In what areas/programs are co-op placements available (human resource, office support, supervisory, leadership, etc)
- Am I required to pay the placement? If so, what or who determines the rate of pay? Is there financial assistance or funding available?
- What is the paperwork involved in providing a placement?
- Will someone assist me in planning for the placement?
- Do I get to choose the candidate?
- What happens if the placement is not working out?
- Can I take on more than one placement at a time in the same department?
- What are my obligations (who covers insurance etc.)?
- What are the usual terms for placements (length of time etc.)?

Challenge: Unionized Environments

It was noted that in some cases, unions are presenting barriers to allowing co-op/practicum students into the workplace. The general consensus was that the unions perceive that co-op/practicum students would take away hours from their existing members. However, as one employer pointed out there is a critical need today, to work with unions to establish common ground and co-operatively focus on practical solutions for creating a qualified and skilled workforce.

Solution: Increased Collaboration & Compromise with Unions

Work with the unions to explore the benefits of placements to their members and suggest compromises such as restricting the number of placement hours a company can utilize on an annual basis.

CO-OP / PRACTICUM – INDUSTRY & BUSINESS AWARENESS

Challenge: Increased Awareness for Business & Industry

There is a need to better educate and inform employers about the value co-op and practicum has to business, the students and the community as a whole.

Solution: **Employer Forums**

One solution would be to conduct forums to achieve this higher level of awareness and commitment. Forums should:

- Incorporate presentations made by business and industries that currently provide co-op and practicum placements
- Have presentations that focus on real life experiences by these employers including the types of placements provided (office support, leadership/management, design, engineers etc.)
- Deliver an objective presentation of both the benefits and challenges associated with providing these placements, and include the immediate impact on the organization and the long term benefits for Human Resources and the talent pool
- Provide an open discussion period to discuss the cost/benefit analysis of providing placements including the;
 - Time commitment
 - Need for planning
 - Candidate as a contributing asset to the business
 - Need to be realistic (allowing a placement full access to server technology is simply not realistic)

Challenge: Increased Co-operation – Industry & Educators

Solution: **Employer Forums**

It was also noted that forums would provide business and industry the opportunity to explain and explore some of their concerns directly with the post secondary institutions. Some concerns presented in the discussions included:

- An impression that the co-op/practicum process will not be streamlined, and that there will be substantial amounts of paperwork to be completed
- Business and industry need assistance in overcoming some of the challenges associated with specific areas. One example provided was in Human Resources—there was a concern about how to provide the individual with relevant activities in an area where confidentiality and privacy laws are very restrictive
- There was a definite concern expressed that any level of co-op/practicum or placement needs to have extensive flexibility. This flexibility would be required in order to respond to; employer needs, business needs and multiple levels of time restrictions

- Candidates in co-op/practicum need to be more flexible. They may be required to assist or complete duties that are not directly related to their area of education. One specific example provided was that of an engineering student who did not want to do data entry—the employer perceived it as part of the engineering job, the student felt that their responsibilities should focus only on engineering skills.
- Placements need to understand that there is a possibility that not ALL of their placement time will be spend strictly on jobs directly relating to their chosen career field. There is a need to be flexible and, as in any “real world” work activities, everyone assists in the duties to be completed.
- Employers need to understand that a placement is designed to help the candidates learn. It is not realistic to simply assign ‘grunt’ jobs that no one else wishes to complete.
- In order to encourage employers to participate in co-op/practicum perhaps some form of incentive could be offered to the employer. The incentive does not necessarily have to include actual monies (such as a wage offset), but could include other creative incentives such as a reduction in expenditures for taxes, mandatory government remittances etc.

Hands-on experience in the industry proves a real benefit as it allows employers to groom, shape and commit to the future growth and success of their company, their industry and the workforce as a whole.

Challenge: Lack of Knowledge in Planning

Another key barrier to business and industry participating in co-op/practicum is the lack of knowledge and experience on how to plan for a placement.

Especially when a business is ‘project based’, planning for a co-op/practicum becomes an even greater challenge. Such a placement could result in one of two extremes (a) a project that will provide substantial career learning or (b) day to day activities with little or no career specific application and learning.

Solution: Provide Assistance in Planning

There was a definite expression of interest from the majority of participants in receiving assistance in planning and developing strategies that would allow them to create and participate in placement opportunities.

EMPLOYER AWARENESS – ADVISORY GROUPS

It was interesting to note that the majority of respondents openly admitted that normally they are only concerned with Human Resource issues when these issues present themselves as a barrier.

However, this admission was coupled with a strong desire to change this approach—to become more proactive—and commit to activities that will allow Human Resource departments to receive regular general updates on issues impacting their available talent pool.

Those respondents that are currently, or have participated in advisory groups, are generally extremely pleased with the results and reaction of educators to suggestions and directions provided by the advisory group.

Challenge: Increase Awareness of Advisory Groups

Many participants were not aware that advisory groups existed in collaboration with the college or university (primarily midsize employers within Brantford).

Solution: Dedicated Web Page Section

Educational institutions should add a section to their web site indicating ‘advisory groups’. This link could provide information regarding;

- What advisory groups are currently in progress
- What industry or skill group the advisory group is focused on
- Who is currently participating in the advisory group

The web page should also provide a ‘contact us’ area, where interested employers could provide contact information and indicate that they would like to;

- Attend and/or participate in an advisory group. This could include both advisory groups that are currently meeting, or suggestions for an advisory group to address a particular sector or industry
- Receive newsletters, bulletins, meeting minutes etc.

Challenge: Ensuring Programs are Relevant

Advisory groups can also play a critical role in keeping post secondary programs realistic and relevant.

Solution: Integrate Business in Program Development

Often when attempting to develop or enhance a program, educators try to be all things to all people. An advisory group can assist the trainers and educators in maintaining a focus on training that will be the most relevant to current and future hiring practices. For example, some training will be done by the employer regardless of previous experience or training a new hire may have. It would not be of benefit to incorporate this level or type of training into the college or university program.

THE INTEGRATED APPROACH

Various suggestions were obtained as to how to achieve a realistic integration of bringing work to school and school to work. The primary focus was how to make school more like the workplace with the simple goal of providing practical experience to learned theories in a win-win situation.

All respondents in the roundtable discussions expressed a keen interest in hiring graduates of these proposed co-operative ventures. These graduates will possess an increased level of skill and knowledge, which will be a direct benefit to both the employer and the industry as a whole, and would enhance the skill and knowledge level of the available talent pool.

Challenge: Bringing Work into School

Solution: In Class Projects

- Have students complete projects in class that have been provided by area businesses. These would be actual projects, with timelines, objectives, guidelines and outcomes. Samples of projects included;
 - Developing training videos (for safety, specific types of equipment etc.)
 - Assisting with the setting up of new technology
 - Assisting with web site design and development
 - Assisting with promotional materials such as brochures, publications or press releases
- To make it a win-win-win situation a company that would like to have a project completed by a class or student would commit to providing a placement for a co-op/practicum student.

Solution: In Class Lecturers & Presenters

- It was generally felt that one of the best methods of integrating business into the classroom is to provide guest speakers/instructors who are currently in the business. Reference was often made to Continuing Education Instructors who are normally business people with specific sector experience, who are able to take the theory, explain it and then relate it to current situations that allow the students to grasp how to practically apply the knowledge.
- Presenters currently in the industry can provide real world—real life situations and experience that would assist students in going beyond the theory.
- Making it a win-win-win situation by bringing in guest lecturers currently in the industry, the educational institutions would build strong relationships and ties between the instructors, the students, the guest presenter and the industry as a whole.

Solution: Ongoing Input into Programs and/or Services

Another key advantage identified to an integrated approach between business, industry and educators is in the development of new programs or services. If, for example, the post secondary institution was developing a new degree, certificate or diploma, input could be received from the consumers of these course graduates regarding:

- Recommended training space and equipment requirements
- Courses that would be relevant for both current and future Human Resource requirements
- Industry could bring the knowledge and 'network' of suppliers of equipment. This could provide a strong opportunity for the post secondary institution to source out equipment and services that would benefit the students and the course
- Recommended progression of courses and curriculum from introductory to advanced levels

An excellent example was provided by the print and packaging industries, which is currently experiencing major growth and critical skill shortages. In an integrated approach they would bring their expertise to the table and provide critical suggestions on such issues as curriculum, equipment and program entry requirements. Consider the following suggestions:

- The program could begin with a one-year introductory term to cover courses that are common areas of training and knowledge in the corrugated, pressboard and plastic industries.
- After completion of this one-year introductory term, students would have a better appreciation of the jobs and responsibilities and could then specialize into their area of preference including whether to pursue digital, creative or packaging areas
- Industry could provide a network of suppliers—these equipment suppliers are often looking for an objective space to showcase their latest and greatest equipment. The supplier would be responsible for installing the equipment at the educational institution and this equipment would be used by the institution to provide training to their students
- In return, should the supplier wish to demonstrate this equipment to potential customers, the educational institution would need to be flexible and accommodate a time for the demonstration to occur
- In the case where a particular industry requires experience on a very specific piece of equipment or specialized software, the industry could sponsor that training within the institution (for example, specialized equipment coming from Europe, wireless technology etc.)
- As maintenance of specialized equipment is also an issue, the supplier could provide a qualified technician for ongoing maintenance. While the preventative maintenance was being performed, students from other appropriate programming (such as Maintenance Mechanic) could learn first hand from the technician

Solution: Modified Scheduling

Another key area, which was identified as having extreme potential in an integrated approach, is that of scheduling of courses and specific training modules. The premise is to co-operatively work together to structure programs that allow the employed individual to join classes for specific modules of training.

The best example provided was training in AutoCad. If for example, the semester was structured so that one week per month would be dedicated to training and using AutoCad, and each month would present progressively higher levels of difficulty, then an employer would have the opportunity to change the work schedule of certain employees to allow them to participate in the assigned week each month. It was understood that there would be a fee involved, but the rationale was that if a course is being offered on a set schedule, it is easier to plan for the training.

It should be mentioned that during this discussion there was some frustration and disappointment expressed regarding Continuing Education evening courses, and the canceling of courses due to low registration. Basically the statement expressed was *“if the course is being offered during the day to full time students, I know for sure it is being offered. I would like the opportunity to put my employees into a program that I know is going to run”*.

It was stressed that RARELY if ever, can an individual be properly instructed in any application in a one-day or one week class. It was reiterated that providing training with progressively higher levels of difficulty (once per month) would allow the employee time to apply what they have learned to their day to day responsibilities, and better prepare them for the next level of training.

Challenge: School To Work Transition

There are definite problems with the school to work transition. Training and information on acceptable behaviour started in high school, needs to continue throughout higher education with increasingly higher expectations of appropriate behaviour and actions.

Solution: Incorporate Work Practices into School

Attempt to incorporate more of a ‘workplace’ environment in education regarding such issues as attendance, performance, policies, procedures, expectations and responsibilities. Especially through an integrated approach, which will bring more real life and work experience to the training and education process, it is anticipated that there will be less of a ‘culture shock’ during the transition.

Education and training has the perfect opportunity to influence the way students view work, and the realities of a global marketplace with high levels of competition.

PRIOR LEARNING ASSESSMENTS & ACCREDITATION

The need to improve our capacity to deal with immigrants and prior learning/education assessments and credits was a key area identified across all sectors. The two examples repeatedly expressed were;

- the need to make it easier to transition into the Canadian educational system for new immigrants
- the need to place value on prior learning and work experience for employees or individuals who are looking to return (part-time or full time) to upgrade and/or expand their skills

Governments are simply not connecting the dots and are not supporting the mandates of other ministries. The example used to stress this point was in Health Care. The Ministry of Health is infusing money into health care in an attempt to improve waiting times, access etc. There is still a shortage of trained medical personnel. Immigration is opening up to allow more trained professionals into Canada to assist with key shortages. However, the skills and education obtained outside Canada are not readily accepted or recognized! Some participants in the discussion indicated a first hand knowledge of immigrants with extensive medical training that are working in retail.

Challenge: Understanding the Accreditation Process

Many employers indicated that in some cases, they are not clear on how standards are set and monitored. A perfect example provided was the Personal Support Worker course—*“Is the course through a college the same course that is provided by a private vocational school?”*

Generally employers indicated an interest in better understanding how standards are set, who is required to abide by the standards and whether standards are universal. This interest in obtaining more information on standards was especially important when discussing unregulated professions.

Challenge: Regulatory Bodies

Various respondents questioned the increase in standards of education and voiced a concern that governing bodies appear to have an elitist approach in some cases.

It was acknowledged that although standards are warranted to maintain a level of knowledge and expertise, increases in the length of time from entry into education through to actual practise are often ridiculous and don't make sense. Two excellent examples provided were; nursing increasing from a 3-year to 4-year program and paramedics from a 1-year to a 2-year program. The question raised was *“Are these increases really warranted?”*

It was stressed that the governing bodies and educators need to work together to stay in tune with what is happening in the marketplace. Collectively they need to be able to reduce the amount of time in programs, while maintaining standards, to allow both the student and the employer faster access to trained and qualified personnel.

RECRUITMENT ISSUES

It was acknowledged by numerous respondents that they have every intention to grow their organization, but without the right skills in the right place at the right time they will be unable to maintain a strong growth strategy.

Perception is Everything!

In some cases the organizations have been very frustrated in their recruiting process. They have had solid career opportunities especially in the design and IT field and have not been able to find qualified and/or experienced candidates locally. In one organization the majority of their key employees are from London, Kitchener, Waterloo, Hamilton, Ancaster and Stoney Creek.

Part of the problem identified is the ongoing perception that Brantford is a lunch box town, and does not encourage or promote graduates and/or qualified employees to search for opportunities within the community.

Specialized Equipment

Another challenge faced by some organizations is that training does not exist locally for certain types of specialized machinery. The most appropriate example provided was regarding certified machinists. A machinist may have 10 years experience in Ontario, but they simply do not have the knowledge to operate, maintain or program some of the specialized machinery that is being purchased from Europe.

Investing in the Current Workforce

In all cases, companies and organizations reiterated a commitment to re-skilling, upgrading and expanding the skills of their current workforce. The two key attributes they look for are attitude and the ability to learn.

Manufacturing companies indicated that normally a new hire is assessed for a minimum of one year. During this initial year of employment, the company will assess the employee's ability and desire to be, for example, a certified machinist. What the company is ideally looking for is the employee with natural ability. If the employee shows a high level of interest, desire and natural ability, the company will make the investment in the employee through the apprenticeship process.

Although companies expressed the willingness to invest in their employees, many indicated that expanding the existing talent pool of individuals would directly benefit their growth strategy and would NOT stop them from investing in the existing workforce.

The Non-Existent Talent Pool

Industries involved in printing and packaging are experiencing major growth and are having difficulties obtaining qualified candidates for multiple positions—there are simply more openings than qualified graduates.

EVOLVING EMPLOYMENT OPPORTUNITIES

Although most participants in the discussions recognized the trend towards a knowledge based economy, there is still a strong manufacturing focus that works in tandem with this knowledge to provide a strong competitive edge in the global marketplace.

Manufacturing Design

Manufacturing is evolving into advanced manufacturing concepts with extensive upgrades involving technology. Future employment opportunities will reflect this transition. One of the best examples provided to reinforce this statement is “a **semi-skilled machine operator** today will be a materials handler in the future”. This will have an impact in the overall productivity and efficiency of companies and employees in manufacturing. Currently, the semi-skilled operator is ‘setting the pace’ for production, based on their knowledge, experience and expertise on their particular machine. With the introduction of robotics and technology, the machine sets the pace and the operator becomes a material handler traditionally at less pay.

As strong growth in manufacturing industries continues, advanced manufacturing concepts will become a reality—this in turn will change the expectations and responsibilities of employees. The evolution of both machinery and process will shift and transition away from ‘the floor’ and create a substantial need in high-end design and programming. These employees will need to master;

- Planning
- Scheduling
- Programming
- Critical thinking
- Problem solving

Further, robotics, automation and technology advances will also create a shift in programming responsibilities—the responsibilities will grow and become more demanding and complex.

Another example provided was in the **welding** field. Welding of custom metals such as aluminum and stainless steel is a highly developed skill that requires extensive experience and expertise. With the introduction of robotics and automation, the machine is programmed to provide consistent levels of accuracy, thus the welder opportunities evolve into design and programming opportunities.

Manufacturing Maintenance / Mechanics

As manufacturing embraces robotics and technologies, it was interesting to note that the majority of the advanced manufacturing technologies are being purchased overseas (primarily Europe).

In examples provided, teams from Europe will come to the Canadian manufacturer to set up the machine and ensure it is in operating condition. The real challenge for the Canadian manufacturer however, occurs in the ongoing maintenance, programming and repairs associated with the machinery.

Some employers indicated that the supplier will provide, at a cost, training sessions to assist in mastering the new machinery. However, the unanimous consensus was that ultimately they require someone on site, who has the experience and expertise to prevent machine downtime.

It was also mentioned in one particular case that the company openly acknowledged they would be training themselves in the preventative and ongoing maintenance of the equipment. It was expressed that the hope was that this 'trauma training' will not result in major delays in production deadlines.

Information / Computer Technology

With some exceptions (operating systems, payroll systems, AutoCad (design)), an increased number of organizations are creating custom programs which are designed by the IT department. The rationale focused on two key issues (a) propriety licensing costs and (b) the need to customize programs to suit both the industry and their particular organization.

One challenge identified in IT is to find individuals who have equal knowledge and expertise in both programming software and troubleshooting of hardware. It is not cost effective to hire an employee and have them on-site for simple day to day hardware problems such as troubleshooting printers. However, as the software programmer is an integral part of the day to day operations, and is required on-site at all times, it is the ideal solution for the programmer to have this complimentary knowledge and expertise.

Another challenge identified in IT is that most activities are project based. Although the industry may have an established base of revenue, it is increasingly difficult for them to react to peak periods when they have the opportunity to bid on numerous projects, but simply do not have the core staff to accommodate all the bids. High interest was expressed in the ability to access a talent pool of qualified IT professionals, who would commit to assisting with these projects on a contractual basis.

Further discussions identified that they would be more apt to provide the less complex projects to junior staff, or contract hires and utilize their core staff for completing the larger, more complex projects.

Agriculture

Agriculture continues to be a strong presence within the area, and is a career area that typifies (a) the impact of advanced technology and (b) the need for employees to have extensive skills diversity.

Whether working for a smaller family farm or a large consortium, individuals wishing to pursue a successful career in agriculture require training, experience and education that will allow them to be familiar with all aspects of maximizing the potential of the farm.

Due to high competition and operating costs, especially for the smaller farms, hiring an individual full time for each occupation listed is simply not possible. What was indicated as an ideal solution is to have a talent pool of 'floaters' that could be contacted to assist in the various areas listed, on an as needed basis.

Again it was stressed, that due to the immediate need, training programs supporting agriculture need to be extensive—but short term and timely. Shorter-term programs could potentially be more easily accessed by the farmer and/or family members, especially if offered in less peak periods of the year.

There were various opportunities and occupations identified as critical to the ongoing success of agriculture today. Any occupation needs a substantial blend of skills diversity. The following examples highlight some of these occupations and the necessary diversity required:

Nutrient Management

To be successful the training and education will need to provide a diverse base to allow the individual to:

- Scout fields for insects, fungus and nutrient levels
- Be able to test soils for chemical breakdown
- Monitor spraying cycles (for maximum efficiency)
- Calculate tile lay out for irrigation
- Test and survey soil content and nutrient level to determine potential for alternate groups

Equipment Technicians

Equipment technicians are in high demand, especially if they are experienced in all levels of heavy equipment involved in farming (combines, harvesters for multiple crops, bailers, tractors, seeders etc.). Equipment technicians will need to be well versed in:

- Ongoing and preventative maintenance of equipment
- Repair and retrofitting
- Programming of harvesters depending on the crop (farms often have to wait unreasonable times for technicians to come on site to re-program the equipment)
- Field yields (computerized)
- Farm management systems to monitor crops and yields
- Environmental farm plans

Vet Technicians

It would be ideal for farm operations if they had the ongoing services of a Vet Technician. These individuals would focus on the basic and preventative health of all farm animals—large and small.

It was never implied that these technicians would replace a qualified veterinarian. The parallel was drawn that compared today's doctor with a nurse practitioner—by working together the veterinarian and the vet technician could substantially improve animal care.

Accounting & Finance

The experience and training required is beyond accounting and finance and needs to ensure the individual has an appreciation for farm management as a whole.

Key training and experience should include:

- Payroll (including off shore workers)
- Accounts Payable and Receivable
- Tracking of labour hours, equipment (maintenance, programming etc.)
- Farm management (yields, testing etc.)
- Familiar with regulations regarding off shore workers

Relief Workers

This was an area that was identified as being critical to assisting the 'smaller' or family operated farm. There is an opportunity and need for individuals who can assist with the farm operations on an 'as needed' basis.

These individuals would be responsible for the operation of the farm in the owners' absence—absences that could occur due to sickness, injury, personal tragedy or simply to allow the owner to enjoy holidays.

The training for these relief workers would need to be extensive, as they would need knowledge of farm management in:

- Milk production (need to be up to date on computerized methods/testing)
- Crop harvesting
- Swine / Horses /Chickens

Farm Specific Trades People

When operating any type of farm, equipment needs to be functioning at all times. In the case of, for example, a power outage if the generators are not immediately operating it could result in a loss of thousands of dollars for the farm.

A well-trained trades person would have farm specific knowledge/experience in:

- Plumbing / Electrical
- Compressors / Generators
- Farm equipment (small engine through to large machines, including specialized equipment)

SUMMARY

This has been an extremely valuable exercise that has brought people and ideas together towards one common goal—an examination on how to collaborate to improve the development of our available talent pool.

This investment is critical to the economic development, growth and diversity of our community, our province and our nation. The way we do business, where we do business and how we do business has changed dramatically. To stay competitive we need to work together to successfully shape our future workforce.

It was interesting to note that the majority of respondents openly admitted that in the past, they usually addressed Human Resource issues only when it presented a problem for their organization. However, employers realize that it is imperative that they take a proactive approach now, to come to the table, and be an active participant in training and development.

This collaborative effort will require commitment from multiple stakeholders; provincial and federal governments, regulatory bodies, educational institutions, business and industry, unions and individuals—a commitment to creating a skilled and talented workforce that will lead to economic prosperity.

The willingness of business and industry to work together with educators and trainers was the most positive aspect of this exploration. They actively encouraged the continued collaboration of our two local post secondary institutions, Laurier and Mohawk, and are eager to be involved with them in planning to meet local needs.

This endeavour also highlighted the need to maintain a focus on both those receiving training and education to enter the workforce and those currently employed. Re-skilling, upgrading and expanding the skills of our existing workforce is important, not only to meet future challenges and open new opportunities, but also address the danger current employees face—their existing skills are quickly becoming obsolete! A creative approach will be needed by both employer groups and educators to make this a reality.

Human Resource challenges have progressed far beyond entry-level positions in most sectors—the respondents were very definitive—blending of college and university programs from front line through to senior and executive positions will be the key to meeting increasingly complex skill demands.

This report further highlighted the need for life long learning. In all skill areas there was an equal focus on university and college programming throughout the total career span of an individual. Transferability of credits, progressing from diplomas and certificates to degrees, blending of programs and the need to compliment theory with practical experience were key areas identified as being critical to the success of candidates, whether new hires or working towards senior positions and advancement.

There were numerous suggestions presented throughout this report and the following points are a synopsis of expanded mandates and revised thinking that will lead to success;

- An expanded mandate for Human Resources and Skills Development Canada has been suggested: (a) to invest and provide services that will assist in the re-skilling of the employed workforce in addition to services for the unemployed. (b) to recognize the need for everyone, employed or unemployed, to have access to career pathing services including counseling, interest and aptitude testing, internships and work terms in order to ensure individuals are pursuing the best career path.
- Training programs need to promote skills diversity and support a blending of theory with work experience. Everyone participating indicated a keen interest in hiring graduates of these proposed co-operative and integrated programs—graduates that will possess an increased level of skill and knowledge.
- They recognize the importance of integrated programming between post secondary institutions that value both theory and practical application and that will promote the transferability of credits towards diplomas, degrees and certificates
- Government and regulatory institutions need to improve the process of assessing prior learning and credit application. It must be streamlined to ensure easier transition into the Canadian educational and employment systems for new immigrants, and should place higher value on prior learning and work experience for employees or individuals who want to return (part-time or full time) to upgrade and/or expand their skills. All experience acquired, whether at another educational institution or through the workplace should be recognized.
- Regulatory organizations, trainers and educators need to be more flexible in improving programs in order to provide opportunities to fast track graduates and allow business and industry faster access to trained and qualified personnel.

The outcome of these roundtable discussions has provided interesting challenges for employers, educators and government. We anticipate that this preliminary exploration and report will lead to numerous future activities and promote continued dialogues to make collaboration, integration and cooperation a reality.