Learning in the Workplace: A literature review

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The following report was written with the support of the Department of Post-Secondary Education, Training and Labour, the University of New Brunswick and the NB2026 Citizen Engagement Initiative on Learning. Its primary purpose is to summarize the literature on workplace learning in provincial, national and international contexts and to provide a set of recommendations about what employers in New Brunswick could do to transform their workplaces into learning organizations.


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Executive Summary

The Government and people of New Brunswick are engaged in a process, whereby everyone is working together to create a province that focuses on the co-existence of prosperity and quality of life. The road ahead is difficult, and will involve the implementation of a multi-pronged approach to rebuilding and renewal.

As a partial roadmap for this renewal process, the Government has recently published Growing Together Rebuilding New Brunswick: Economic Development Action Plan 2012-2016, of which labour force development is a significant component. The report highlights four growth opportunities, listing human resources first, followed by the development of a competitive business environment, strategies for attracting investment capital, and improving market access.

To develop human resources, it is essential to match people, education, and training with extant employment and opportunities. This matching must be accomplished by encouraging individuals to engage in relevant formal training opportunities (ie. college and university training opportunities), and by supplementing the skills of those who are already in the work force, since formal education is not the only way to engage adults in lifelong learning.

The primary purpose of this report is to focus on workplace learning, the second prospect mentioned above by which skills can be connected to labour force requirements. Investing in individual and collective skills, or human capital, is an important part of ensuring stability and stimulating economic growth. The province’s strength depends on these skills; together, Government, businesses, community organizations and individual workers share the responsibility to develop and implement sophisticated learning and training programs.

In the pages below, we first discuss why workplace learning is essential for rebuilding New Brunswick. We mention the productivity, skills and literacy gaps that exist between the province and much of the rest of Canada. We then show how closing these gaps will improve wellbeing through increases in competitiveness and employment stabilization.

We then survey the literature for ideas about how to enhance workplace learning opportunities, focusing in particular on publications, policies and procedures from across New Brunswick, Canada, and rest of the world. In exploring both the theoretical background and practical examples, several best practices emerge, most notably the need to:

- Nurture a culture of lifelong learning
- Gain support from management, unions and community groups familiar with workplace learning
- Conduct pre and post- assessment of learning needs
- Create flexible workplace learning programs tailored to employees
• Develop collaborations between employers and training institutions to provide learning opportunities in the workplace

After outlining each of the suggestions above, we discuss the challenges that might emerge if these best practices were to be implemented in New Brunswick. One of the key points made throughout this report is that workplace learning is a vast field with many aspects to consider, including:

• Varied definitions and theoretical approaches based on the perspectives of academics, policy-makers, community groups, unions, employers and employees;
• International, national, provincial and territorial policies, programs and initiatives;
• Differences between policy, statistical reports and case studies;
• Distinctions between workplace training, literacy, learning and essential skills programs;
• Differences in workplace environments and varying degrees of learning cultures;
• Benefits, barriers and best practices of workplace learning programs for employers, employees and the economy;
• Assessments i.e. program evaluation and return on investment.

By extending the review to areas outside of adult learning but relevant to Business, Policy, Sociology, Literacy and Education, the report is able to provide the reader with a comprehensive review thereby approaching learning in the workplace as a system that is inclusive and collaborative.

We hope that the suggestions provided in this report will be of use not only to policy-makers but also to employers when designing and implementing learning programs within their workplace.
Introduction

Learned skills and knowledge not only help determine a country’s economic success, but also affects its overall quality of life (CCL, 2010, 4). Because of this, learning in all of its forms is recognized as a major economic driver. The creation of a community of learners is a lifelong responsibility shared not only by individuals, but by society as a whole. Lifelong learning, an approach supported by the Organisation for Economic Co-operation and Development (OECD), is a concept of economic and social well being that has become very popular in international policy discussions.

While the value of learning at all stages of life should not be understated, this report will focus on learning in the workplace - a key aspect of adult learning1 that encourages the maintenance of specific skills and knowledge needed to succeed in work life and as active members of society.

“In a knowledge-driven economy, the continuous updating of skills, attitudes and the development of lifelong learning will make the difference between success and failure, and between competitiveness and decline.”

-David Blunkett, former United Kingdom Secretary of State for Education and Employment.

About this Report

The following report was written with the support of the Department of Post-Secondary Education, Training and Labour, the University of New Brunswick and the NB2026 Citizen Engagement Initiative on Learning. The primary purpose of this report is to summarize the literature on workplace learning in provincial, national and international contexts and to provide a set of recommendations about what employers in New Brunswick could do to transform their workplaces into learning organizations. The report however is limited in scope as its focus remains solely on the employed workforce and not on the unemployed.

It is divided into the following four sections:

- **Section 1: Labour Market Information**
  This section will position the role of workplace learning within the context of Canada and New Brunswick’s changing labour market. By using demographic projections and statistics from Canadian sources, it will help to create the link between these and organizational productivity, innovation and the importance of investments in human development.

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1 Adult learning, is defined by the Organisation for Economic Co-operation and Development (OECD) as all
• **Section 2: The Value of Workplace Learning**
  This section shows how education and training can help the economy adapt to changes in the labour market. This section also affirms the link between literacy rates, human capital and long-term economic growth. It suggests that education and training can lead to economic stability and that a rise in literacy would lead to an increase in labour productivity and in GDP. It also suggests a more inclusive approach to workplace learning that combines education and training programs with literacy and essential skills.

• **Section 3: Literature Review**
  This section will include both academic and non-academic sources dated from the year 2000 to present date, and will provide an overview of workplace learning. By reviewing both the theoretical and empirical literature on workplace learning, this section will approach workplace learning by examining its effects on both the individual (types of learning, barriers to learning etc.) and the institution (case studies, learning organizations etc.).

• **Section 4: Recommendations and Conclusion**
  The final section analyses these findings to identify key themes and issues identified in the literature. By reviewing the information and identifying weaknesses in Canadian and international academic literature, the following section will provide a set of recommendations to improve the provincial learning opportunities and to help transform New Brunswick into a learning province. The discussion will close with final thoughts and suggestions for future research.

**Note:** The opinions expressed in this report are those of the authors and do not represent the views of the New Brunswick Department of Post-Secondary Education, Training and Labour, the NB2026 Citizen Engagement Initiative on Learning or the University of New Brunswick.


Section 1:
Labour Market Information

1.1 Canada

The Canadian Council on Learning and the Organisation for Economic Co-operation and Development (OECD) have found investments in human development (whether this be through education or training) are critical in securing a strong economy and greater social equity (CCL, Securing Prosperity, 2009; Coulombe and Tremblay, 2009; WLKC, 2007).

a. Productivity gap

Although Canada boasts the highest percentage of adults having completed post-secondary education among OECD member countries\(^2\), a recent report identified “increasing innovation and productivity” as the first of five fundamental challenges (Canada 2020, 2011). According to the authors, Canada's lack of productivity growth has been troubling the country's economy for decades.


Despite having high levels of individual educational attainment and investment, Canada’s labour productivity and productivity growth has been low by international standards

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Source: Coulombe, 2011.

High levels of educational attainment and experience in the labour force have typically been associated with labour productivity, but Canadian patterns suggest otherwise. Instead, literacy and skills may have a stronger influence on overall productivity and may provide a more direct measure of human capital (Statistics Canada, OECD, 2011). In fact, improving the quality of the education and skills of the labour force is said to be important in growing productivity and securing long term economic growth (Coulombe, 2011; Coulombe and Tremblay, 2009; CCL, 2009).

b. Skills gap
On top of the productivity issues above, the Canadian Chamber of Commerce says the Canadian skills crisis is one of the top 10 barriers to its competitiveness3. According to them, Canada's economy is being held back by a growing shortage in skilled workers. The demands of the knowledge economy and the transformational nature of information technology means that skill and educational requirements will continue to rise and change.

A 2008 report of Canadian small- and medium-sized enterprises (SMEs) found employers had trouble finding and retaining employees and as a result have had difficulty growing their businesses (CFIB, 2008). In Canada, the greatest human resource needs in the SME sector are for semi-skilled and junior-skilled employees. In other words,

“Canada’s skills (and human resources) shortage is the major socio-economic challenge confronting this country, and it will be so for the rest of our working lives”.

- Canadian Chamber of Commerce

3 See the full list of barriers here: [http://chambertop10.ca/10-barriers/](http://chambertop10.ca/10-barriers/)
business owners are finding it increasingly difficult to find employees that require on-the-job training, a high-school diploma, an occupation-specific experience or a college or apprenticeship diploma (CFIB, 2008). One report published by the Conference Board of Canada, says that since 2000, growth in Canadian jobs has been driven by industries like resources and housing which is having profound implications on the urban-rural distribution of jobs, the education requirements of workers and in what occupations workers can find employment (Education and Learning, 2005). The increase in post-secondary education enrollment has created a workforce with a skillset that does not match the labour shortages. In other words, there seems to be a mismatch between the education being pursued after high school and what is required and available in the workforce. The report estimates that by 2025, Canada will face a skilled labour force deficit of 1.2 million people, the impact of which is already being felt in a number of different sectors including: health care, construction, education and natural resources (Education and Learning, 2005).

1.2 New Brunswick

While the entire country is faced with the repercussions of these demographic changes, the situation is particularly visible in the Atlantic provinces.

a. Productivity gap

As illustrated in the table below, New Brunswick’s current working age population is approximately 620,000, of which an estimated 62.8 per cent participate in the labour force (Statistics Canada, 2012: CANSIM table 282-0002). In the coming decades however, the working age population is expected to fall well below 600,000 resulting in uneven and unstable employment growth.

Source: PSETL, LMA Annual Plan 2011-2012

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4 See the CFIB’s report “Building Prosperity for the Future: An SME perspective on productivity in Atlantic Canada” (2010).

5 This is below the national average of 66.8% (Statistics Canada, 2012, CANSIM table 282-0002).
As the population ages and baby boomers continue to leave the workforce, improvements to productivity will be essential to the region’s future prosperity (CFIB, Building Prosperity for the Future, 2010; PSETL, Canada-New Brunswick Labour Market Agreement Annual Plan, 2011-2012). According to the CFIB’s report Building Prosperity for the Future: An SME perspective on productivity in Atlantic Canada, this means that “…both the private and public sectors must be able to do more with less” (2010). Research, they found, continues to show that Atlantic Canada’s trails the country in productivity levels.

Although there are a number of factors that can potentially impact productivity, labour and human capital are becoming more important. According to their report, businesses must not only have access to a certain number of workers, they must also hire workers with the necessary skills to do the job (CFIB, 2010, 3). Research has shown that workers with less than a high school diploma have a much higher unemployment rate (19% versus 6%) and on average much weaker labour market characteristics than those with higher skills (PSETL, 2011). These demographic projections suggest that New Brunswickers cannot afford to stop learning after they leave the formal school system.

b. Skills gap
Improving the skilled labour shortage is also a priority for the province’s Francophone business community. In fact, the skilled labour shortage has been at the top of the Conseil Économique du Nouveau-Brunswick’s (CÉNB) concerns for the sixth consecutive year.

In March 2011, the CÉNB, representing close to 1000 francophone entrepreneurs and members of the business community, surveyed its members to gain insight into this issue. The study found that although 40% of respondents reported having challenges in access, hiring and retention, the labour market is not experiencing a shortage of workers but a gap between worker’s skills and labour market requirements. The survey also found that the main gaps in terms of worker availability were related to core competencies (teamwork, people skills, communication) and technical skills.

c. Literacy
The CÉNB attributes these challenges to low literacy levels and youth out-migration. According to the study, 160,000 people with literacy levels 1 and 2 are competing for 50,000 jobs available for this skill level and only 80,000 people with a level 3 are applying for 180,000 available jobs. The low employment rate in jobs available to those with higher literacy levels, they say, is tied to youth out-migration. Proficiency in literacy provides the

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6 With the exception of Newfoundland and Labrador, see pages 2-3 (CFIB,2010).
8 “Les pénuries de main-d’œuvre qualifiée représentent l’un des plus grand défis de notre économie et de la communauté d’affaires francophone de la province. D’ailleurs, cette préoccupation occupe la première place des principales préoccupations des membres du CÉNB depuis les six dernières années.” (CÉNB, 2011)
9 See CÉNB’s “Report on the Survey on Workforce Requirements” for more information.
10 See quotation “According to the Fédération d’Alphabétisation du Nouveau-Brunswick, 68% of Acadian and Francophone adults in the province fall into either of the two lowest literacy categories (level 1 or 2). This
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foundation for the acquisition of knowledge and skills. Literacy is intimately tied to adult learning activities and it has been proven that an increase in proficiency leads to an increase in participation rates in both formal and informal learning (StatsCan, 2007). To stabilize economic growth and to keep employment numbers up, the province will not only need to attract more qualified people but will also need to improve and develop its current labour force.

d. Call for action

This is not to say that the province has yet to take action. In fact, the Alward government recently unveiled an economic development action plan with a mandate of rebuilding the province’s economy based on its human resource potential, traditional economic strengths\textsuperscript{11}, and strategic growth sectors\textsuperscript{12}.


In order to help businesses improve productivity and competitiveness, the action plan identifies three specific goals tied to labour force and skills development and more importantly, has recognized the importance of improving literacy and workplace essential skills; focusing attraction efforts on highly skilled workers and business immigrants; refocusing training programs and filling existing information gaps related to labour market demand and supply for particular skills and the supply of available labour (PNB, Rebuilding NB Action Plan, 2012; Appendix A, Table 5).

By setting specific targets, the province has created key success indicators to measure the outcome of its economic development plan. In section 4.2, the indicators are grouped into four categories: strategic indicators that support key objectives; priority sector-specific

translated to 160,000 people in levels 1 and 2 competing for 50,000 jobs available to these skill levels, which explains the high unemployment rate…”(CÉNB, “Report on the Survey on Workforce Requirements and Skills, June 2011: 3).

\textsuperscript{11} Identified as: Forestry, fisheries and aquaculture, mining, tourism, agriculture and oil and gas (PNB, Rebuilding NB Action Plan, 2012).

\textsuperscript{12} Identified as: Value-added Food; Value-added Wood; Information and Communications Technology (ICT); Industrial Fabrication; Biosciences and Aerospace and Defence.
indicators; other indicators that regularly monitor, forecast and contribute to government revenue projections according to the “2015 Strategy Map for a Stronger Economy”, because it was released only this year, the results have yet to be measured.

In addition, on June 6, 2012 along with the other three Atlantic premiers, New Brunswick Premier David Alward established an Atlantic Work Force Partnership. The partnership, managed by provincial deputy ministers responsible for economic development, skills training, labour and immigration is expected to help provinces prepare for upcoming changes in skill requirements and will help to prepare for the demand associated with upcoming projects in the mining, electricity and shipbuilding sectors. By improving skills development and utilization; enhancing apprenticeship opportunities; and by leveraging each province’s strengths, the partnership will work to strengthen the labour force in Atlantic Canada (Council of Atlantic Premiers’ Secretariat, 2012).

Although more details have yet to be released, the partnership represents yet another step towards improving the province’s current situation. An inventory of existing programs and initiatives not mentioned above has been outlined in Appendix C.
Section 2: The Value of Workplace Learning

One of the most efficient ways to guarantee an enhanced skill-set, inspire innovation, maintain competitiveness and stabilize employment is through quality education and training (CCL, Securing Prosperity 2009; CCL, State of Learning, 2009; CFIB, Building Prosperity for the Future, 2010).

Individuals with higher education tend to experience greater employment stability, while those with lower basic skills often experience labour market disadvantages (CCL, Securing Prosperity, 2009; Ananiadou, Jenkins and Wolf, 2004). Canadian statistics from 2010 and 2011 confirm this, showing the highest unemployment rates and lowest income levels in those with less than a high school education (see Tables 1 and 2 in Appendix A). Adults with higher levels of education are also found to live healthier lifestyles, to be more engaged in their communities, and to volunteer and give financial donations and enjoy higher levels of overall life satisfaction, report (CCL, 2010: 36, 48).

Education, training, and the skills that flow from them, have an impact on productivity and growth at both the individual and national level (CCL, 2006). In Canada, most adult learning and training occurs at the workplace. Through formal and non-formal learning at work, adults acquire, develop and maintain skills that contribute to human-capital development and enhanced workplace productivity.  

In most cases, the reader will find that the literature shows a separation between the benefits to both employers and employees. In this sense, workplace learning can be looked at through a micro and a macro perspective (Bauer and Gruber, 2007).

The macro perspective most often includes theories in business administration, lifelong learning, human capital and organizational theory. Empirical research focusing on this perspective look at social practices, the economy, labour market shifts, productivity, skill shortages and organizational changes. Research shows that employers who invest in workplace learning programs experience a high rate of return on that investment (Saunders, 2009; WLKC, 2007; CMA Fact Sheet 5, 2009) One Canadian report found that

13 See the CCL’s report “Securing Prosperity Through Canada’s Human Infrastructure: The State of Adult Learning and Workplace Training in Canada” (2009) for description of formal, non-formal and informal adult learning.

14 Although there are some models developed to measure ROI, such as one developed by Dr. Jack Phillips (used by companies like Nortel Networks, the CIA, Scotiabank and Atomic Energy of Canada), more research is needed in this area (WLKC, 2007).

for each $1 invested in an apprentice, employers accrue a benefit of between $1.38 and $1.44 (WLKC, 2007).

The *micro*\textsuperscript{16} perspective on the other hand is centered on the employee and how they react to changes in the workplace. This approach favours learning and knowledge types, human resource and professional and individual development theories. Empirical research using this approach most often focuses on individual development, agency, motivation, subjectivity, identity and life transitions (Billet and Pavlova, 2005). For employees, workplace learning programs improve self-esteem and emotional intelligence, ability to progress, greater community involvement, increased organizational skills, confidence, overall motivation and contribute to the organization’s learning culture (Schierbeck and Devins, 2002; Clarke, 2006; Unwin, 2008). In addition, many Canadian reports found that employee retention and job satisfaction is related to companies with a positive organizational culture who provide their employees with opportunities for continuous learning and development (READ, 2009; WLKC, 2007). The table below, published by the Conference Board of Canada, lists and separates the benefits of workplace learning.

\textsuperscript{16} Collin and Valleala’s 2005 Finnish case study a microsociological approach to study employees in two technology enterprises and found that learning in the workplace is primarily about working together with other people within a network that links the learner or worker with the interests of different people and stakeholder groups – a finding they believe would have been overlooked using a macrosociological approach.
As is illustrated above, investment in adult learning not only helps employers and employees to adjust to labour and skills shortages but can also serve as a protection in times of economic instability (Canduela et al., 2012; CCL, 2009, 7; 21).

In today’s Canadian workplace, the SME sector spends a reported $18 billion annually on informal and formal training expenses (CFIB, 2008). While this may seem like an exorbitant amount, a 2009 Conference Board of Canada report equates it to approximately $787 per employee in 2008, a 40% decline over the past fifteen years (CCL, 2010:47). High levels of investment and number of years of education do not guarantee economic growth nor does it guarantee a high level of skill (Statistics Canada and OECD, 2011).

Although there seems to be a significant investment in training expenses, this has not translated to an increase in skills related to literacy for example. More than 40 per cent of working-age Canadians have low levels of literacy. In Canada, literacy is another important element tied to the efficiency and effectiveness of the learning process. Students with higher literacy skills are more likely to become independent learners, which in turn increases the productivity of the educational process as a whole (Murray et al., 2009). Research suggests that improving the literacy skills of the 9.1 million Canadian adults with a literacy Level 1 or 2 to a Level 3 would increase access to education, training and to higher paying jobs thereby increasing skilled labour and overall workplace productivity (McCracken & Murray, 2010; Conference Board of Canada, 2010; Marlin et al., 2008; WLKC, 2007).

Literacy in Canada is therefore not only linked to human capital but also plays an undeniable part in a country’s economic growth (McCacken & Murray, 2010; Statistics Canada and OECD, 2011). In Canada, differences in average literacy levels explain more than 55% of differences in the long-term growth rate of GDP per capita at both the national and provincial level (McCacken & Murray, 2010: 4). It is also believed that a rise of one per cent in literacy scores would result in an eventual 2.5 per cent rise in labour productivity and 1.5 per cent rise in GDP (WLKC, 2007).

In New Brunswick, an estimated 56% of the population does not have the necessary literacy and essential skills to cope with the expected challenges and the changing economy (Literacy Coalition NB, 2012). This is especially true when workers rely on seasonal, traditional industries that offer lower-skilled jobs with little opportunity for advancement (Marlin et al., 2008; CÉNB, 2011).

Unfortunately, there seems to be a divide in literature and in practices involving workplace learning. To be innovative, countries must invest in the continuous learning, skills updating and training of their populations. In fact, increased labour productivity has been the most important driver of economic growth in most industrialized countries over the past decade”

-CCL, 2009, 19
literacy/essential skills and workplace learning\textsuperscript{17}. Because of this, research is needed that will embed literacy and essential skills into workplace learning (CCL, 2009: 6). There is also a need for targeted, industry-specific, research that would help improve the quality of workplace education and training programs in an individualized way. These contributions would help increase the effectiveness of learning and training programs and at the same time would help identify an organization's return on investment. Ultimately, the research would show how investments in human capital\textsuperscript{18} and in human infrastructure\textsuperscript{19} play an important role in ensuring the strength of Canada's future prosperity (Coulombe and Tremblay, 2009; CCL, State of Learning, 2009; CFIB, 2010).

\textsuperscript{17} Discussed at length in “Embedding literacy and essential skills in workplace learning: Breaking the solitudes” (Derrick, 2012).

\textsuperscript{18} Human capital is defined by Coulombe and Tremblay (2009) in their literature review as “a stock, and that it is entirely embedded into a person... Investments in human capital might come from education, studying, apprenticeship, and learning-by-doing (experience). It was also explored by Statistics Canada (2010) in their report “Estimates of Human Capital in Canada: The Lifetime Income Approach”.

\textsuperscript{19} Human infrastructure according to the CCL's 2009 report includes learning and skills acquired in early childhood and during the formal years of initial schooling, through formal and informal learning contexts including the home, school, workplace and community.
Section 3: Literature Review

The following review summarizes the academic and empirical literature on workplace learning by providing definitions, examples, impacts, limitations, best practices and recommendations.

We must keep in mind however that workplace learning is a vast field with many aspects to consider, including:

- Varied definitions and theoretical approaches based on the perspectives of academics, policy-makers, community groups, unions, employers and employees;
- International, national, provincial and territorial policies, programs and initiatives;
- Differences between policy, statistical reports and case studies;
- Distinctions between workplace training, literacy, learning and essential skills programs;
- Differences in workplace environments and varying degrees of learning cultures;
- Benefits, barriers and best practices of workplace learning programs for employers, employees and the economy;
- Assessments i.e. program evaluation and return on investment.

By measuring the current state of workplace learning in both the academic and the applied literature in New Brunswick, Canada and around the world, this review will provide clarifications and create linkages between the different areas and aspects of learning in the workplace. It will compare and combine research, reports and case studies from the years 2000 to 2012 to show how workplace learning can and continues to benefit employees, employers and the economy as a whole. The following pages will provide an overview of adult learning policies and publications, types of learning and workplace learning programs.

3.1 Adult Learning Policies and Publications

a. Worldview

In Western industrialized societies, work and learning have traditionally been categorized into separate social systems. The emergence of knowledge-based work however, has brought forth a need for collaboration between the work and learning spheres. With innovation, competitiveness and productivity as economic priorities, learning can no longer be viewed solely as a form of preparation for work (Nieuwenhuis and Van Woerkom, 2007; Jacobs and Park, 2009).

The period from the 1980s to the middle of the 1990s was defined by rapid globalization, competition and political change. To survive this, many organizations around the world
went through structural change (Avner and Lluis, 2011). Following the International Literacy Year proclaimed by UNESCO in 1990, there was increased discourse about literacy policy. In 1994, the world’s first internationally comparative survey of adult literacy was conducted which compared literacy in 20 countries (Organisation for Economic Co-operation and Development, 2000; Ananiadou, Jenkins and Wolf, 2004). This study, and a follow-up study conducted in 2003 (Statistics Canada, 2005), confirmed that there was reason for concern (READ, 2009).

The changing economy, increases in out-migration, demographic shifts and the restructuring of traditional sectors all play a strong part in the characteristics of the labour market. In Europe for example, structural changes in the industrial sector translated to a loss of more than 730,000 employees in the steel industry since the 70s (Stuart and Wallis, 2007). Not surprisingly, this has had significant implications for skill requirements and for learning.

Many countries in Europe have been adopting policies to help remedy the situation20 and to adapt to the changes in the labour market (Scully-Russ, 2005). In the Scandinavian countries, efforts to promote new forms of work organization began in the 1960s. By the 1980s, more than 450 organizations were transitioning to ‘learning oriented forms of organization’ (Gustavsen, 2008). In the 1990s, national campaigns like the Swedish ‘Work Life Fund’; the ‘Enterprise Development 2000’ programs in Norway; and the ‘National Innovation Policy’ in Finland were created to boost economic development and productivity. Workplace learning and training is one of the pillars of Swedish adult education, where study circles and adult education centers continue to play a strong role in adult learning since the mid 19th century. Since the 1990s, adult education has expanded to include more than 30% of Sweden’s workforce (Nijhof, 2005).

"The learning agenda has become an increasingly prominent policy concern in the European Union. Set against the Lisbon agenda, learning and skills development are portrayed as central components of a strategy to make Europe the most competitive and dynamic knowledge-based economy in the world by 2010".

- Stuart, 2010

increased to 68% (Ananiadou, Jenkins and Wolf, 2004).

In 2000, the Lisbon Council for Economic Competitiveness and Social Renewal pledged to “become the most competitive and dynamic knowledge-based economy in the world.”

In the U.K., learning at work has been a feature of the U.K.’s economic policy since 1997 (Ball, 2011; Rainbird, 2000). The developments resulting from these policies were intended to convince employers of the link between training, productivity and competitiveness and to increase the number of employers who provide training for their employees. In 2003, less than 60% of employers in England offered training to their employees and in 2009, this number

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Inevitably, this made innovations in training and learning a major driving force in Portugal’s public policy. (Martinez et al., 2007).

In response to this, in 2001 the European Commission undertook an extensive consultation exercise resulting in the publication of *Making a European Area of Lifelong Learning a Reality*. Here, learning was defined not only in formal terms but also included the non-formal and informal types (Stuart, 2007; Stuart and Wallis, 2007).

That same year, Norway implemented a statutory right to study leave for up to three years in its ‘Work Environment Act’ (from 2001). It also backed a legislative amendment obliging universities and colleges to assess adult applicants who apply on the basis of documented non-formal learning. Having already made major changes to its education system throughout the 1990’s, Norway continued the pursuit of its vision of lifelong learning by implementing the adult education Competence Reform (Payne, 2006). One branch of this reform, called the ‘Competence Development Programme’ has supported over 700 local projects develop education and training programs that are tailored to the needs of companies and employees (Martinez et al, 2007). Although Norway had the second highest participation rate (44%) in job-related continuing education and training, a recent study found that many employees were not taking advantage of these resources due to a lack of overall funding and motivation (Payne, 2006). In fact, according to the 2003 Learning Conditions Monitor, less than 1% of Norwegian employees take the study leave annually (Payne, 2006). Because of this, the Competence Reform has been criticized for its poor marketing strategy and ineffectiveness.

In Scotland, the Scottish Executive committed about £220m in 2004 to programs such as ‘Modern Apprenticeships’, ‘Enterprise in Education’, the ‘Scottish Union Learning Fund’ and the ‘Scottish Skills Fund’. Since 2005 however, Scottish colleges and universities have been funded by the Scottish Funding Council, whereas workplace learning and training is funded by the Scottish Executive and/or by employers. A survey of employers in Scotland showed that 60% used private training providers, 24% used colleges and 10% used higher education institutions (Riddell, Ahlgren and Elisabet, 2009). Funding is also subject to variation for individual learners who, depending on their income and employment status, have access to only certain allowances. Still today, there continues to be debate about whether work-related training should be funded by the state, the employer or the individual. Regardless, their research has found that employees with higher level qualification are more likely to participate in training and that employers remained skeptical and they suggest that future economic policies on lifelong learning need to take into account the barriers which continue to exist in both employers’ and employees’ mindsets” (Riddell, Ahlgren and Elisabet, 2009).

Adult education in Australia on the other hand has, since the 1980s, been affected by changes in state demographics, in the organization and composition of the workforce, in

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22 For more information on Scotland’s programs, see the “Skills and Development Scotland” website: [www.skillsdevelopmentscotland.co.uk](http://www.skillsdevelopmentscotland.co.uk)
technology, in the definition of ‘adult education’ to a more broadly accepted ‘adult learning’, and in overall educational policies. In the year 2000, following many of the world’s OECD countries, over 38% of adults participated in some form of organized learning (Tennant and Morris, 2001).

In 2002, New Zealand’s Ministry of Education committed to adult education and learning in the workplace with the publication of the government’s Tertiary Education Strategy 2002-2007. In the foreword, the Minister wrote “...the Strategy is one for “tertiary education”, and by that I mean all of the learning that takes place in the field of post school education and training”. The strategy included both formal and non-formal learning and focused on ACE (Adult and Community Education) Learning Centres and Networks, workplace learning as well as universities, research institutes and academic qualifications.

Differences also exist between the types of training provided by employers depending on a country’s corporate governance23 (Georgen, Brewster and Wood, 2009; Evans et al., 2004). Liberal market economies (UK, USA), social democratic economies (Finland, Sweden and Denmark), Southern European or Mediterranean capitalism (Italy, Spain, Portugal and Greece) and Continental European Capitalism (France, Germany, Austria and Belgium) vary not only in their political structure but also in the nature of their neo-corporatist policies, agreements and associations. This, not surprisingly, has an effect on their levels of training at the firm level.

b. Canada

According to Canada’s Constitution Act of 1867, the country’s 13 jurisdictions are each responsible for the organization and delivery of education, and because of this have differed in their policies, legislation, financing, research and assessment in the area of adult learning. “School boards, colleges, universities, nongovernmental organizations, civil society, industry, trade unions, and the voluntary sector also play crucial roles in the development and provision of adult learning” (CMEC, 2008). In Canada, although there is no federal department or national system of education, provinces have been paying close attention to adult learning for quite some time.

In 1982, Quebec's Commission of Enquiry on Adult Education tabled a report covering adult education. Not surprisingly, the report found only 15% of employers provided funding to their employees. To help improve this situation and to help develop an organizational culture of lifelong learning, the Quebec government decided in 1990 to make a training tax credit available for companies (Duranleau, 2000). The tax credit incentive did not produce

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23 See Table 3 in Appendix A for a breakdown of the differences by varieties of capitalism.
the desired results so the newly elected provincial government passed an *Act to foster the development of manpower training*. The Act, passed in 1995, required “...every employer whose total payroll for a calendar year exceeds the amount fixed by the regulation of the government is required to participate for that year in the development of manpower training by allotting an amount representing at least 1% of his total payroll to eligible training expenditure.” As a result, since 1996, 85% of large companies and 65% of small employers invested in training. Shortly after in 1999, the government engaged stakeholders to create an adult education policy with an emphasis on literacy, adult basic education, prior learning assessment, distance education and e-learning (CMEC, 2008). This consultation resulted in the “Governmental Policy on Adult Education and Continuing Education and Training” and the publication of a 2002-2007 action plan.

Similar policies were also introduced in Alberta in the 1990s which reinforced the human capital idea that schools should prepare students for the workplace and for lifelong learning (Taylor and Lehmann, 2002). In 2006, the government went on to publish three documents: “Today’s Advantage, Tomorrow’s Promise: Alberta’s Vision for the Future”, “Today’s Opportunities, Tomorrow’s Promise: A Strategic Plan for the Government of Alberta” and “Literacy – For a Life of Learning!”. According to the Department of Advanced Education and Technology’s business plan for 2006–09, the program had three main goals which were to develop strategies to increase participation in learning opportunities; to improve learning access by enhancing transitions into and within the advanced education system and to provide opportunities in local communities for adults to return to learning to meet their personal learning and employment goals (CMEC, 2008). Since then, the new Ministry of Enterprise and Advanced Education oversees a number of areas including post-secondary education, apprenticeship and trades, adult learning, student funding, economic development, research and innovation, labour and immigration24.

In Saskatchewan, a Training System Review Panel submitted a report to the provincial government focusing on continuous learning, skill enhancement, economic development and expanded training programs by 30 per cent in 2005 (CMEC, 2008).

In 2006-2007, the Ontario Ministry of Education and Training Colleges and Universities created an adult education policy unit to create and administer adult services and programs25 across the province (CMEC, 2008). This eventually led to the creation of the “Sector Initiatives Fund” which helped industry sectors and organizations develop training programs to address the skill gaps in their workforces.

In Prince Edward Island, Workplace Education PEI combined the work of businesses, unions and organizations to assess and make recommendations that would address the learning needs of both individuals and organizations (CMEC, 2008).

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24 See website: www.eae.alberta.ca

25 For more information and an extensive list of policy, legislation and financing see the Council of Ministers of Education, Canada’s (CMEC) “The Development and State of the Art of Adult Learning and Education: Report for Canada”, 2008.
At a Federal level, what was then known as the Human Resources and Social Development (HRSDC) department launched an *Essential Skills Research Project*, identifying nine skills common to all workplaces and occupations (READ, 2009; Fenwick, 2006). In 1998, the first large-scale Canadian survey of formal and informal learning practices was published by the New Approaches to Lifelong Learning (NALL) research network (Livingstone, 2007). This was followed, in 2004, by the Work and Lifelong Learning (WALL) survey of the formal and informal learning activities of Canadian adults. Later in 2007, the federal *Office of Literacy and Essential Skills* was created within HRSDC- today known as Human Resources and Skills Development Canada. The office offers a number of essential skills tools for employers and employees and provides funding to improve the literacy and essential skills of adult Canadians (READ, 2009).

Despite all of this, Canada’s performance in workplace learning has not been strong. Although Canadians are being told to upgrade their skills, less than 30% of adult workers in Canada participate in job-related education and training, compared to 35% in the United Kingdom and almost 45% in the United States (Saunders, 2009; Saunders, 2008c; WLKC, 2007).

On top of this, more than 40% of adults in Canada lack the literacy and basic skills to function in today’s society (Saunders, 2008c). The situation is even more dire in the northern parts of the country, where rates can be as high as 66%, and employers are faced with low educational levels and high occupational demands (WLKC, 2007).

Over the last ten years however, the Canadian government has been committed to lifelong learning, skill development and investing in human capital. The 2011 *Speech from the Throne* for example says:

> “In the years ahead, our prosperity will also depend on making sure that all Canadians have the skills and opportunities to contribute, to innovate and to succeed. Our Government’s plan will provide assistance for workers who want to learn new skills and seize opportunities. It will remove barriers for older workers who want to continue their careers. It will lay the foundation for long-term growth by helping a new generation gain the critical skills they will need to thrive in the workforce.”

- Speech from the Throne, 2011

To better understand the state of workplace learning (both formal and informal), hundreds of Canadian research, reports, networks, forums and case studies have been commissioned and conducted in the last ten years. For example, Human Resources and Skills Development Canada’s report *“Employer-Sponsored Training in Canada: Synthesis of the Literature Using Data from the Workplace and Employee Survey”* looks specifically at the employer and the

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26 See HRSDC’s [*What’s in it for you?*](https://www.read.org/whatsinitinforyou/) which identifies: increased productivity, enhanced workplace efficiencies, increased competitiveness, more vibrant and engaged workforce, better workplace health and safety, better team performance and a more highly skilled workforce as benefits of investing in essential skills.
employee’s role in providing formal training opportunities (Dostie and Montmarquette, 2007).

Another report published by the Canadian Federation of Independent Business found most small businesses struggle with providing training to their employees. When asked how this could be helped, the top three responses were: a broad-based training tax credit, overall tax relief, and an Employment Insurance holiday for trainees” (CFIB, 2008,6). Although the likelihood of training increases with the company’s size, the consensus is that small businesses in Canada and around the world provide training just as intensively as larger-scale businesses (CFIB, 2008). Although SMEs cannot match the same level of investment made by larger companies, they can continue to focus on improving the quality of their learning programs (Watt and Kitagawa, 2009). Watt and Kitagawa’s (2009) report for the Conference Board of Canada gives many examples of companies doing just that.

It can however be difficult for companies to explore and to adopt the practices of other companies across the country since education is under provincial jurisdiction. Because of this, Canadian provinces, territories and municipalities have had to explore workplace learning independently.

One report published by the Canadian Association of Municipal Administrators gives examples of champions and learners making a difference in Municipalities across Canada. Programs like the “Workplace Self Improvement Program” in St. John’s Newfoundland; the city of Moncton’s workplace learning program; Kingston Ontario’s ‘Joint Employee Education and Development’ (JEED) committee; Winnipeg, Manitoba’s ‘City-CUPE Joint Education Fund’; Grande Prairie, Alberta’s ‘Workplace Learning Committee’ all show just how much value the country places on workplace learning (CAMA, 2008).

c. New Brunswick

Recent policy documents released by the provincial governments in New Brunswick show how they have attempted to approach learning in the workplace.

In 2005, the provincial government published a policy framework titled “Lifelong Learning: Quality Adult Learning Opportunities” aimed at creating a culture of lifelong learning in New Brunswick (PNB, 2005). The framework was designed as a compliment to three other pillars focusing on Early Childhood Development; Kindergarten to Grade 12 (Quality Schools, High Results); Post-Secondary Education and Training (Quality Post-Secondary Opportunities) and was part of the government’s 10-year plan in achieving economic prosperity and competitive growth. Here we can see that the framework is based on ideas of human capital and was shared with “all partners in learning including individuals (learners, parents, workers, and volunteers), institutions (educational and non-educational), businesses, community/ service/non-governmental organizations, and governments” (CMEC, 2005).

In the spring of 2008, the Conseil Économique du Nouveau-Brunswick (CÉNB) surveyed its members on the programs offered by the province’s Department of Post-Secondary Education, Training and Labour. The survey found a need for technical and financial assistance from the government for employees needing an upgrade in their skills as well as a need for customized ongoing training and development offered through educational institutions and in the workplace.
Later in 2009, the Government released a document called "Working Together for Adult Literacy: An Adult Literacy Strategy for New Brunswick" a strategy informed by consultation with the stakeholder community (more specifically with community literacy organizations). Here the focus was less on engaging individuals and businesses but focused instead on collaborating with community groups. Although the government had an interest in improving literacy rates, it was also interested in solving labour market challenges and furthering economic development. "Improving literacy skills, they said, can have a positive impact on people's lives in areas such as employability, wage rates, income, and healthy lifestyle...In the workplace, companies have consistently reported benefits from improved literacy skills of employees: increased ability to undertake training; better team performance; improved labour relations; improved quality of work; increased output; fewer errors; better health and safety records; and better employee retention" (GNB, 2009, 6).

Since then, New Brunswick's Department of Post-Secondary Education, Training and Labour's Adult Learning and Employment Division has been responsible for the creation and implementation of many adult learning programs aimed at improving the conditions of workplace learning (see Section 2: Program Inventory). This departmental division however, poses a problem for workplace learning since the mandates are often revised once a new political party comes into power thereby making it difficult to construct a cohesive and consistent framework for the creation or development of workplace learning programs (Pirie, 2000).

A recent report published in 2011 based on CÉNB'S Survey on Workforce Requirements and Skills, found workforce training and availability to be critical in ensuring the success and growth of companies in New Brunswick. To deal with growing labour market challenges, employers have had to be innovative in their workplace learning strategies. Fortunately, a growing number of companies across Canada have been encouraging and supporting workplace learning. The CÉNB report found 79% of their respondents provide training to their employees, most of whom prefer in-house training, ongoing training and customized training.

### 3.2 Types of Learning

Changes in the labour market and in the economy have influenced the pedagogical and theoretical views on education, teaching and learning (Hager, 2004). Although adult learning has been defined differently across disciplines, most researchers and theorists have studied the concept of learning at the individual level. More recently, learning has been defined as a "relatively permanent change in behavior, cognition, or affect that occur as a result of one's interaction with the environment" (DeSimone, Werner, & Harris, 2002, p. 75).

For the purpose of this review, workplace learning will be defined as:

> "The process of learning takes many paths and the workplace can enhance these opportunities."
> - Unwin, 2008
"...a process which involves an interaction between workers and their environment when engaged in a training or education program, at the same time representing an internal process of inquisition and construction leading to a learning result" (Doornbos, Bolhuis and Simons, 2004; Jacobs and Park, 2009).

Within an organizational setting, a wide range of factors influence the nature of learning programs and because of this, views on workplace learning have changed significantly (Roan and Rooney, 2006; Styhre, Josephson and Knauseder, 2006; Fenwick, 2008; McGuire and Gubbins, 2010). Much of the literature varies not only in learning types, learning styles and learning dimensions but also in its definition of knowledge and in theories of education and organizational learning (Yang, 2003; Poell and Van Der Krogt, 2003; Doornbos, Bolhuis and Simons, 2004).

Several theories, frames and conceptual models have been used to explain learning in an organizational setting. Among them, social systems theory (Callahan and Dunne De Davila, 2004), socio-cultural constructivist theory (Smith, 2006; Casey, 2005), learning action theory (Brine, 2006), situated learning theory (Pare and Le Maistre, 2006; Gustavsson, 2009; Tanggaard, 2009), expansive learning theory (Young, 2001; Gustavsson, 2009), MacIntyrian theory (Halliday and Johnsson, 2010), neo-institutional theory (Raelin, 2009), complexity theory (Davis and Sumara, 2001), acting-network theory (Edwards and Nicoll, 2004), Foucauldian theory (Zemblyas, 2006), Parsonian theory (Casey, 2005) and problem-based learning (Hardless, Malin and Nuldén, 2005).

Building on these learning theories, different researchers have proposed specific models and perspectives (Halliday and Johnsson, 2010; Tanggaard, 2009) of workplace learning such as the person-role model (Ellinger and Bostrom, 2002) and the actor-model (Poell and Van Der Krogt 2003) that may be useful to educational planners and facilitators.

The literature also often separates learning into two categories “learning as acquisition” (formal learning) and “learning as participation” (informal and non-formal) and can be discussed at either an individual level (employee’s agency and identity), a collective level (practical organizational work and social interaction) or as a combination of these two

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28 Berings, Poell and Simons (2005) look at workplace learning styles in “Conceptualizing On-the-Job Learning Styles”. Elkjaer also looks at a pragmatic learning theory that combines the “knowledge acquisitions metaphor” with the “participation metaphor” in an organizational setting.


31 For a rich and extensive list of workplace learning theories, see Fenwick (2001) and Fenwick (2008).

32 Rhodes and Scheeres (2004) frames three discourses of organizational learning: pre-modern, modern and postmodern as a way to of ordering knowledge about organizations and their relationship to learning.

Learning in the Workplace (Felstead et al., 2005; Ashton, 2004; Johnsson and Boud, 2010; Li, D'Souza and Du, 2011). See figure 1 below for clarification.

Figure 1.

In other words, learning in the workplace is a way to provide adults with a mixture of formal instruction and informal experiences that will benefit both their individual development and also work-related knowledge, values, literacy and essential skills (Zepke and Leach, 2006; Jacobs and Park, 2009; CLC, 2010).

a. Formal learning

According to Human Resource and Skills Development Canada (HRSDC), formal modes of learning are defined as structured learning activities that lead to a credential, i.e., programs that combine multiple courses toward the completion of a diploma, degree, certificate or license. For the purpose of this report, we have chosen to adopt the definition used by the CFIB, which says

“Formal training refers to training provided to employees as they attend seminars, workshops and any classes or lectures delivered by professional instructors” (CFIB, 2008: 6).

In much of the research however, learning, education and training are used interchangeably and in many cases are also related (Kazi, 2008). For example, studies have shown that formal learning often inspires people to continue further learning and vice versa (Kazi, 2008; Unwin, 2008; Taylor, 2008). Canadian case
studies found employees often reported practicing their classroom skills within and outside the organization (Kazi, 2008).

The difference however is that formal learning includes employer-sponsored education and training whereas, non-formal and informal learning do not. Employers can support employee education or training activities in a number of different ways including: providing the training, paying for the associated costs (either directly or by reimbursing the employee), creating a flexible work schedule, or providing transportation to and from the training site" (CLC, 2010: 47).

b. Non-formal learning

Formal learning is not the only way to engage employees in the workplace. Because work-related learning does not always follow a formally organized learning or training program, learning can happen within work-related social interactions and sometimes without an educator (Doornbos, Bolhuis and Simons, 2004). The CFIB defines non-formal training as:

"...on-the-job training provided by supervisors and co-workers to fulfill accreditation requirements such as apprenticeship training, to help staff update skills, to transfer knowledge within the firm, or transition new employees into their new workplace” (CFIB, 2008: 6).

Activities such as mentoring, coaching, observation by a supervisor, job rotation, e-learning, as well as self-guided learning such as reading, researching, problem-solving and sharing resources are all examples of non-formal learning. This type of learning also includes spontaneous learning, deliberate learning, reflexive learning (Beckett, 2001), emotion learning (Bierema, 2008), situated learning (Fuller and Unwin, 2003; Shan, 2009), self-directed learning, learning through social interaction, experiential learning, action learning (Scott, Butler and Edwards, 2001; Guglielmino and Guglielmino, 2001) and all other forms of activities with the goal of learning as illustrated in Table 4 in Appendix A (Doornbos, Bolhuis and Simons, 2004; Illeris, 2007; McGuire and Gubbins, 2010; Cotter and Cullen, 2012; Smith, 2001; Hardless, Malin and Nuldén, 2005). In this sense, although it does not lead to formal certification, non-formal learning supports and acts as a complement to formal learning by providing learners with greater contextual flexibility (Kazi, 2008; CLC, 2010: 47; Eraut, 2004).

In the last 30 years, non-formal learning in the workplace has become popular in the public policy debate on lifelong learning at the European level and around the world (Skule, 2004). In Denmark, studies have found that informal learning at work is the most common way of learning for employees. According to this research, informal learning should be legitimated and workplace learning should be utilized as a tool for improving professional skills (Aarkrog, 2005). One Canadian study, which used a sub-sample of the Work and Lifelong

34 Informal learning in some cases has been referred to as experiential learning, which is categorized as either intentional or unintentional learning (CCL, 2009). For the purpose of this report however, we have chosen to use non-formal learning as an all-encompassing term which, depending on the context, includes intentional and unintentional learning.
Learning in the Workplace

Learning data set, found that 80% of workers reported participation in informal learning (Weststar, 2009). Another found over 90% are engaged in intentional informal learning activities regardless of prior schooling or further education involvement (Livingstone, 2007).

Despite the fact that non-formal learning is pervasive, there is limited formal evaluation of its effectiveness (Skule, 2004). The lack of universal indicators is a problem for policy makers and for businesses looking to access and promote informal and non-formal learning (Skule, 2004). Prior Learning Assessment and Recognition (PLAR) (the preferred term in Canadian literature) is one example of recognizing non-course learning or non-formal adult courses (Spencer and Kelly, 2005). In the workplace, PLAR can be used by workers to show they have the particular knowledge and skills necessary for career advancement. It is difficult to study these types of interactions because they are largely unmeasured and because much of the work on workplace learning is influenced by an individual’s understanding of how learning occurs in a formal (as opposed to non-formal) learning environment (Hager, 2004).

3.3 Workplace Learning Programs

This section has been organized based on best practices found in the academic literature and in the Conference Board of Canada’s case studies (2001-2005) obtained from conducting a search of the NALD library. Using the best practices as headings, the reader will find specific examples demonstrating how organizations in Canada and around the world have overcome limitations in order to create successful workplace learning programs.

a. Creating a learning organization

Today, education is no longer limited to traditional schooling but is a process that continues throughout one’s life course. This process has been aptly titled ‘lifelong learning’, and is a term often used synonymously with adult education (Jenkins, 2006). In Europe, lifelong learning is defined as “all purposeful learning activity, undertaken on an ongoing basis with the aim of improving knowledge, skills, and competence” (Nijhof, 2005).

The OECD framework for the achievement of lifelong learning has five main elements:

- Strengthening foundations for lifelong learning by improving the accessibility and quality of initial education;
- Improving pathways and transitions between formal and non-formal learning and work during their lifespan;
- Rethinking and clarifying the roles and responsibilities of the various ministries and levels of government, community organizations, employers, and trade unions for policy development and implementation;
- Incentives for individuals and companies to invest in lifelong learning by increasing the benefits, decreasing the costs, and facilitating access to finance; and
- Monitoring progress in achieving the goals of lifelong learning and evaluating the impact of policy instruments (Nijhof, 2005).
In the United States, the City of Albany adopted a philosophy of lifelong learning. Its mission statement says the City is renowned for its “commitment to training and development” (Watt and Kitagawa, 2009). Because of this, the City is said to have enhanced staff skills, met its strategic objectives, improved employee retention and morale, encouraged innovative approaches, and ultimately has made their City an attractive workplace (Watt and Kitagawa, 2009). Since then, both Victoria and Vancouver have been recognized as successful learning cities (READ, 2009). The Canadian Association of Municipal Administrators also put together fact sheets for successful workplace learning programs, ways to measure ROI and tips for Canadian municipalities interested in creating a learning culture (CMA Fact Sheet 5, 2009).

Creating this culture within an organization however is not an easy feat (Lively and Hutchinson, 2000). Learning is a catalyst for change in organizations. While individual learning in organizations has long been seen as critical to ensuring its survival, collective learning has more recently become just as important. Because of this, companies are now seeing the importance of implementing effective learning processes to succeed in today’s competitive marketplace (Li, D’Souza and Du, 2011).

Learning organization has been a buzzword in academic research since the early 1980’s (Kargaard Thomsen and Hoest, 2001; Styhre, Josephson and Knauseder, 2006). In the early 1990s, the concept began to emerge in various forms, all of which tried to explain the relationship between the individual and the collective (Fenwick, 2008a). The term can also be used to describe an organization that values and promotes a culture of learning and continuous improvement (Andersen and Anderson, 2007; Smith, 2001; Kargaard Thomsen and Hoest, 2001; Ellinger and Bolstrom, 2002).

One article lists eleven characteristics of learning organizations as:

1. A learning approach to strategy;
2. Participative policy making;
3. Informating;
4. Formative accounting and control;
5. Internal exchange;
6. Reward flexibility;
7. Enabling structures;
8. Boundary workers as environmental scanners;
9. Inter-company learning;
10. Learning climate and
11. Self-development opportunities for all (Kargaard Thomsen and Hoest, 2001).

Workplaces will not be successful if they remain static and studies have found workplace learning to be effective only if it happened in a learning-conducive work environment (Boud, Rooney and Solomon, 2009). Therefore, encouraging employees to learn and
Learning in the Workplace

providing positive support for learning in the workplace is the most effective way of guaranteeing organizational change (Ahlgren and Tett, 2010; Ahlgren and Tett, 2010). In order to learn at work, employees should have possibilities for ‘rich’ work experiences as well as possibilities for collaboration and autonomy in order to engage in both collective and individual learning (Kira, 2007).

b. Gain support from human resources, unions and community groups

Research finds a need for partnerships between training providers, unions, businesses, community groups and the labour force (Saunders, 2009a; Saunders 2009b). The capacity to invest in training differs from sector to sector and because of this there is a need for programs and services that will accommodate Canada’s varied demographics. With societies becoming increasingly dependent on knowledge, raising the literacy and skill levels are essential to ensuring its survival. As a result, all sectors should work collaboratively to promote literacy, learning and essential skills (Saunders, 2009a). This includes inter-departmental, interprovincial and international partnerships. Workplace learning and training, both formal and informal play an important role in not only doing this but also in familiarizing employees to a culture of lifelong learning (Unwin, 2008). Below are a few examples explaining these types of partnerships.

HUMAN RESOURCE DEVELOPMENT

Broadly defined as “...a field committed to learning and development for workplaces provided for the good of the individual, employer, nation, or society in general” human resource development (HRD) includes activities of individual development, career development, organization development and performance management (Callahan and Dunne De Dàvila, 2004; Ghosh and Githens, 2011; Li, D’Souza and Du, 2011). Often tasked with the mediation of senior management and employee interests, HRD departments, are well positioned to develop and to find a balance between both formal and non-formal learning opportunities in the workplace (McGuire and Gubbins, 2010). Therefore, it is important that HRD researchers and practitioners use the best tools and techniques to affect learning in organizations (Li, D’Souza and Du, 2011).

Learning is one of the key characteristics of HRD and its effective delivery depends on organizational engagement, innovation and structure. While some organizations are able to provide in-house learning, others outsource to specific providers.

UNIONS

In the last twenty years, the world’s trade union movement has become actively involved in workplace learning. While policy frameworks have for years been concerned with the development of an effective system of employment regulation, adult education and lifelong learning have been at the front of the collective bargaining agendas since the 1980s (Martinez et al, 2007). More recently, partnership approaches around learning are becoming more prominent (Stuart, 2007). Since 1996 in Spain, unions, employers and government have adopted a tripartite approach to administer certain policies related to lifelong learning (Martinez et al., 2007). In the U.K., the government published The learning

35 See Stuart and Wallis’ (2007) report for their typology of learning partnerships.
Learning in the Workplace

age: A renaissance for a New Britain Green Paper announcing the creation of the Union Learning Fund (ULF) for trade unions to access funding for workplace learning projects (Davies, 2008; Forrester, 2005). Later, the 2002 British Employment Act (Section 43) conferred statutory rights on trade union learning representatives (ULRs). Research estimated that approximately 22,000 ULRs would encourage close to 250,000 workers into learning (Forrester, 2005). Although there has been considerable debate on their effectiveness, the ULRs are responsible for developing on-site learning facilities, monitoring the progression of learners, increasing employee participation, providing redundancy support, negotiating training policies with employers, and working in partnership with employers36 (Wallis, Stuart and Greenwood, 2005; Cassell and Lee, 2009; Hoque and Bacon, 2011; Ball, 20113).

Canadian unions have also contributed to the dialogue on lifelong learning. As early as the 1800’s, a worker’s ability to read and write was deemed necessary for his or her participation in the workplace, the community and in the union (Dassinger, 2000). In Canada, the trade union represents almost 4.3 million people in more than 275 unions. In New Brunswick, approximately 314,000 people belong to a union (Uppal, 2011). Changes in the labour market, demographic shifts, new technologies and an increase in government funding have prompted unions to invest in the education of their members (Dassinger, 2000). As a result, many of the unions have implemented workplace learning, training, literacy and essential skills development programs and guidebooks are available for those looking to develop new learning programs (Dassinger, 2000).

In 2009 the Canadian Union of Public Employees (CUPE) published a booklet highlighting stories of different CUPE locals across Canada who successfully set up workplace education programs. The booklet titled “it’s our right: a showcase of workplace education programs and learner stories”, describes eight stories, five of which are from the Maritimes. The workplace program set up in Moncton began in 1998 with CUPE activist Arnold Beers Jr. and was later run by a committee with representatives from Local 51, the City Hall Employees’ Association and city management. Sponsored by the Canadian Association of Municipal Administrators (CAMA), the program focused on basic reading, writing and math, GED preparation, computers, income tax and basic parenting. Since then, it has expanded to include leadership training, public speaking, and French. Overall, the authors found that the workplace education programs helped their members to not only develop new skills but also helped them to brush up on skills they had forgotten therefore helping them participate at work, at home and in their communities (CUPE, 2009).

COMMUNITY PARTNERSHIPS
Workplace learning programs have also been implemented through collective partnerships. Below are a few Canadian examples of companies that have partnered with other organizations, unions, and government departments to implement their learning program. The Textiles Human Resources Council (THRC) is one example of this—a non-profit partnership of textile companies and organizations which brings together textile producers,

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36 For current research on the union learning agenda in Britain, see:

unions, suppliers, government departments and educational institutions to support textile workers across Canada. One of its popular programs is the Skills and Learning Site initiative, which helps textile companies to develop on-site learning facilities. Stedfast is one example of a company that has taken advantage of this partnership to not only create its own learning site but also created a Learning Portal website for its employees (Education and Learning, 2005h).

Located in Hamilton, Ontario, steel manufacturer Dofasco employs 7,400 permanent employees. After a period of restructuring in the 1990s, the company partnered with community programs to launch its Essential Skills Program. In 2005, the company was investing $15 million a year into employee training and development and has been recognized for its commitment to its employees (Education and Learning, 2005c).

Other companies like National Silicates in Toronto decided to combine its efforts with five other companies to develop a program that would help upgrade its employee skill-set. Organized with the help of a group of industry stakeholders, federal and provincial governments, a local board of education, a community college, management and labour representatives, the program is an extensive combination of theoretical and practical training (Education and Learning, 2002e).

In Atlantic Canada, there are a number of challenges to implementing workplace learning programs and because of this, companies are more likely to benefit from collective partnerships (CFIB, 2010). The Elmsdale Lumber Corporation, producer, exporter and whole-saler of kiln-dried lumber in Elmsdale Nova Scotia decided to invest in its employees by creating a Workplace Education Program (WEP) in partnership with the Nova Scotia Department of Education. The WEP offers a series of industry-related in-house courses designed to upgrade essential skills and improve communication between employees (Education and Learning, 2005d).

Located in Montague, PEI, Durabelt markets and produces belted chain conveyor belts. Recognizing the importance of employee skills, the company partnered with Workplace Education PEI to design a workplace learning program. Through this, several workers got their GEDs, attended the local community college for trades training, and prepared an employee handbook for newcomers (Kitagawa, 2000).

In New Brunswick, FundyPros is a specialty construction company employing an average of 250 people. After conducting a training needs assessment in 2008, the company launched an in-house essential skills training program for 30 site supervisors which focused on writing and document use, leadership, communication blueprint and specification reading. As a result, employees increased their capabilities within their work setting and in turn became more confident with their newly acquired skills (Allain, 2012).

c. Conduct pre and post- assessment of learning needs
In most Canadian case studies, learning programs are developed with an initial literacy and essential skills assessment after which the companies are able to develop specific initiatives (Schierbeck and Devins, 2002). In Winnipeg, furniture manufacturer Palliser Furniture Ltd. for example with the help of Manitoba Adult Literacy, began offering classes in literacy and language to its employees as early as 1994. Since then, the company continues to assess its employee needs and now offers a pre-assessment training program as well as more courses
in math, computer literacy and even in manufacturing and leadership (Education and Learning, 2002d; Education and Learning, 2002e).

The learning program is then assessed by evaluating learning outcomes and by measuring the effectiveness of the learning system as a whole (Alvarez, Salas and Garofano, 2004)\(^\text{37}\). Measuring a program’s success has proven to be very difficult and evaluating training failure is an area of growing concern to researchers (Bunch, 2007; Nieuwenhuis and Van Woerkom, 2007; Burke and Saks, 2008; Alvarez, Salas and Garofano, 2004). One study found that only 50% of training investments result in organizational or individual improvements and research links this to the failure to transfer learning (Donovan and Darcy, 2011; Burke and Saks, 2008). Another article estimates that only 10 per cent of all training experiences are transferred from the training environment to the workplace and in the current economic reality, this sort of return on investment is not acceptable to most managers (Velada et al., 2007).

The search for factors that affect transfer has led to the development of models evaluating trainee characteristics, training design and work environments and scales to measure learning motivation, learner readiness, personal capacity for transfer, peer support, supervisor support, transfer design (Donovan and Darcy, 2011; Devos et al., 2007; Gegenfurtner et al, 2009; Veladaa et al., 2007). Overall, research has found that learning programs to be more effective if managers, program designers, trainers, and trainees share common goals, strategies, and implementation (Poell and Van Der Krogt, 2003).

d. Create flexible workplace learning programs

In the literature, a ‘learning program’ is commonly understood to mean three things: first, that workplace learning is guided by a shared framework; second, that the content of the framework has been agreed by the employer, management, staff within the organization; and third, that partners involved engage in close exchange of information, interaction and cooperation (Tuomo, 2007).

Learning programs can be organized in many ways, and can be either structured or not, simple or complex, individual or collective and often include both informal and formal learning and training (Poell and Van Der Krogt, 2003). Because there are so many different types of workplaces, it is difficult to find information about how to set-up a programme. When it comes the planning and implementation of the programmes, it would be useful for workplaces to consult the research on particular models\(^\text{38}\) and frameworks\(^\text{39}\) to find a programme to best suit their particular needs.

Empirical studies of organizational learning include research on small businesses (Lans et al., 2008), the pharmaceutical industry (Schulz, 2008), service organizations (Seymour and

\(^{37}\) See Alvarez, Salas and Garofano (2004) for a full list of training effectiveness and evaluation models.


\(^{39}\) For examples, see Tuomo’s (2007) user-oriented, method-based and learning network projects; Scott, Butler and Edwards’ action learning program (2001) or Wentland’s Strategic Training of Employees Model (STEM).
Below is a list of Canadian case studies, which found most successful workplace learning programs included a flexible\textsuperscript{40} and accessible training model.

Diversified Metal Engineering Ltd., in Charlottetown PEI is a company that specializes in the production of an array of equipment for the food and beverage industry. Wanting to provide their employees with continuous learning opportunities, the company partnered with a provincial workplace education program, Workplace Education PEI to develop a customized employee training program. Overall, the company found that the training has a positive impact on its operations as well as its employees (Education and Learning, 2002a).

The Department of National Defence (DND) in Atlantic Canada is the largest employer in the region with over 24,000 members of the Regular and Reserve Forces and civilian personnel. In order to address the changing work environment, CFB Halifax’s Learning and Career Centre worked in conjunction with Nova Scotia’s Department of Education, the Joint Career and Transition Centre, and DND managers and employees to establish the Workplace Education Program (WEP). Available only to DND’s military and civilian employees, the WEP has been incredibly successful in assessing employees (using PLAR) and accompanying them on a 10-week individualized course (Education and Learning, 2005b).

In 1999, looking to help administrators keep up to date with the changes in the workforce, a group of executive administrative assistants at J.D. Irving Limited’s corporate offices formed a committee to develop a program with a variety of professional development, skills training and knowledge-sharing activities. This program, eventually called the Irving Administrative Professional Accreditation (IAP-A) is now being implemented in all of its offices and has contributed to greater job satisfaction and overall employee productivity (Education and Learning, 2004b).

Tire manufacturer Michelin North America Inc., has run three facilities in Nova Scotia over the past 30 years. In the early 1990’s, the company adopted a new model of teamwork and

\textsuperscript{40} Blended learning combines face-to-face instructional approaches (e.g., face-to-face, problem-based learning, coaching) with computer-mediated instruction and other technologies (e.g., discussion boards, e-content, conference calls). For more information see Oiry, (2009) and Adams et al. (2010).
with that, created a Learning Centre at each facility that would help them implement their new activities related to their new approach. Open 24 hours a day, seven days a week, their Learning Centres employ full-time coordinators and instructors that provide one-on-one tutoring and training for individuals at their convenience (Education and Learning, 2002b).

Halifax’s Prince George Hotel is another organization that has invested in its very own workplace education program. Beginning in 1995, the Workplace Education Initiative was designed to provide customized learning programs to employees in the workplace, based on needs identified in an organizational needs assessment (Education and Learning, 2005e).

**Design programs aligning the needs of individuals with organizational culture**

Research has shown that workplace learning programs are most effective when they are designed to meet the needs of both the organization and the workers (Kazi, 2008; Unwin, 2008; all Education and Learning; CCL, 2010). This way, both the employers and the employees work together to create a learning environment (Kazi, 2008). This model in a sense, favours a combined effort that uses a top-down and a bottom-up approach (Kazi, 2008). Programs that view individuals as active agents engaging in learning and development will be better positioned to understand workplace participation and to address the structures limiting employee advancement and career mobility (Scully-Russ, 2005).

One example of this can be seen at Honeywell Limited in Ontario where learning has become part of corporate culture. Honeywell offers English as Second Language (ESL) training, executive coursework opportunities at top universities, classes in Six Sigma Plus strategy development and implementation, in-house evaluation processes as well as team-building and other self-improvement programs. Honeywell’s Scarborough factory also offers a ‘Learning for Life’ workplace literacy program, which gives employees the opportunity to build and enhance their skills and overall knowledge through courses in English as a Second Language, Mathematics, and Learning to Learn. The program includes community college level courses and courses in personal computing, business writing, personal finance, interpersonal skills, public speaking, law, Total Quality Management (TQM), Production and Inventory Control, French, and Spanish.

Cominco Ltd., a Vancouver-based mining company attributes its success to the continuous improvement of its staff and of its industrial processes. Having identified a need for basic skills education in the late 1990’s, the company formed a committee to identify and carry-out the necessary steps in establishing its very own Learning Centre. The Learning Centre, which was dependent on management and union support, was designed to provide courses for employees that were of specific interest to them and that would enable skill transferring (Kitagawa, 2001).

Technocell Canada (TCC), a company that specializes in the production of photographic and décor paper, employs 150 people in its Drummondville plant. At its start, the company saw an immediate need to develop and maintain a highly skilled workforce. To do this, the company committed to creating a training program that would help improve productivity and employee satisfaction. With more than 25,000 training hours given to 150 employees over a four-year span, Technocell is confident in sharing its positive results with its employees and with the community (Education and Learning, 2005f).
**Recognize differences in learning styles and in accessibility**

Although Canadians are being told to upgrade their skills, less than 30% of adult workers in Canada participate in job-related education and training, compared to 35% in the United Kingdom and almost 45% in the United States (Saunders, 2009; Saunders, 2008c; WLKC, 2007). While there have been some improvements in provinces like Quebec, Canada is still behind with respect to adult learning in the workplace. To better understand these statistics, it is important to look at what is preventing employers and employees from accessing learning and training programs. Research suggests that not everyone has equal chances to participate in adult education and training. Unfortunately it is often those who most need learning opportunities that are least likely to have access to them (CCL, 2010).

**FINANCIAL and STRUCTURAL BARRIERS**

Canadian Business leaders have identified insufficient employer investment as one of the biggest barriers to training (Saunders, 2008c). Canadian research has also shown that employers find it difficult to access the resources (facilities, instructors etc.) and the funding needed to provide innovative training opportunities (Saunders, 2009b).

In Atlantic Canada, employers invest even less on their employees. CFIB’s report “Building Prosperity for the Future: An SME perspective on productivity in Atlantic Canada” found that when it comes to improving productivity, 41 per cent of businesses found investments in capital and staff to be too costly, 38 per cent said they were unable to find staff and 35 per cent were discouraged by uncertainty in their business environment (2010). On average, small business owners in Atlantic Canada spend less than $200 per employee per year on training – well below the national average of $2,700. When asked how they could be helped to provide more training, the majority of SME owners have suggested a training tax credit, similar to the one offered in Quebec (CFIB, 2010: 17). In both Halifax and Toronto, labour representatives proposed that a national training levy along the lines of Quebec’s “1% Law” be put in place by the federal government. They pointed to evidence that the training levy in Quebec has led to more workers benefiting from training programs (Saunders, 2009b). This is an example of employers working with government and policy-makers to create effective funding models.

Employees have also cited the need for more time to participate in training programs (Saunders, 2008c; Unwin, 2008; Taylor, 2009). Unfortunately however, time is not the only barrier for employees interested in workplace learning. Structural inequalities also exist act as barriers for those seeking learning opportunities. Researchers focusing on the barriers for women, seniors, people with disabilities, aboriginal people and new immigrants explain the dangers of taking a blind approach in policy work (Saunders, 2009b; Brine, 2006). One review focusing on gender and learning in Canada found several gaps in the literature surrounding community-based learning amongst Aboriginal women; in rural women’s learning; and in interdisciplinary work on gender and learning (English and Irving,

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41 In reference to a Quebec law requiring businesses to invest 1% into training (Saunders, 2009b).
of who live in small remote communities across Canada. The learning opportunities have proven to be particularly important for Aboriginal people, training, and interactive workshops possible throughout the country. These services and learning opportunities have proven to be particularly important for Aboriginal people, many of who live in small remote communities across Canada. The literature suggests
however that technology is not a solution to all the training needs in rural settings. Some authors point to the need for more generic skills such as digital literacy, among both rural and metropolitan workers and point out that these skills go beyond basic and technical skills (Reardon and Brooks, 2008).
Section 4: Recommendations and Conclusion

Recommendations

The following recommendations have been adapted from the best practices mentioned in Section 3 of this report and also combine suggestions made in a recent report published by the Canadian Council on Learning (2009) modeled after the OECD’s recommendations to improve the effectiveness of the adult learning sector in Canada. Combining these recommendations will not only shed light on the country’s progress in the area of workplace learning but will also help employers transform their workplaces into ‘learning organizations’.

• **Create a culture of lifelong learning**  
  More specifically, companies should create a learning culture to engage the full potential of their employees (Taylor, 2008).

Learning is a catalyst for change in organizations. While individual learning in organizations has long been seen as critical to ensuring its survival, collective learning has more recently become just as important. Studies have found workplace learning is most effective in a learning-conducive work environment (Boud, Rooney and Solomon, 2009). Providing a rich and encouraging environment for employees to learn is therefore the most effective way of guaranteeing organizational change (Ahlgren and Tett, 2010; Ahlgren and Tett, 2010; Kira, 2007). The Canadian Association of Municipal Administrators has created a number of fact sheets which provide ways to implement successful workplace learning programs, ways to measure return on investment and tips for Canadian municipalities interested in creating a learning culture (CMA Fact Sheet 5, 2009).

• **Gain support from management, unions and community groups familiar with workplace learning**  
  Research has found a need for partnerships between training providers, unions, businesses, community groups and the labour force (Saunders, 2009a; Saunders 2009b). This includes inter-departmental, interprovincial and international partnerships. In Atlantic Canada, there are a number of challenges to workplace learning including a lack of knowledge surrounding essential skills, a lack of promotion of on-line tools, a lack of employer investment, and a lack of basic ES training (Martin, 2010). Because of this, companies are more likely to benefit from collective partnerships. In New Brunswick, this means that employers should continue to create and foster relationships with human resource development departments, local unions, and community groups to leverage the resources available to them. See Appendix B and Appendix C for a list of initiatives and provincial resources.

• **Conduct pre and post-assessment of learning needs**
In most Canadian case studies, learning programs are developed with an initial literacy and essential skills assessment after which the companies are able to develop specific initiatives (Schierbeck and Devins, 2002). This is a crucial step in ensuring that the organization’s employees are able to benefit from the learning program.

In New Brunswick, an estimated 56% of the population does not have the necessary literacy and essential skills to cope with the expected challenges and the changing economy (Literacy Coalition NB, 2012). It is therefore strongly recommended that employers assess the literacy level and essential skills of their employees in order to evaluate their formal and informal learning outcomes (Skule, 2004; Hager, 2004).

Although the Prior Learning Assessment and Recognition (PLAR) is one example of recognizing non-course learning or non-formal adult courses, it is not a nationally integrated system and does not certify training providers (Spencer and Kelly, 2005; CCL, 2009). The NB PLAR Action Group is multidisciplinary group dedicated to build resources and support organizations. NBPLAR Action Group is a participatory committee under the Minister of Post-Secondary Education Training & Labour (DPETL) in association with the New Brunswick Council on Articulations and Transfer (NBCAT). It is not a legal entity and has no legislative or regulatory authority. However, the NBPLAR Action Group consists of a number of key PLAR stakeholders in NB, including:

- NB’s post-secondary institutions
- Organizations providing PLAR services to targeted population groups
- Federal and GNB departments whose mandates coincide with the delivery of
- PLAR Professional Organizations, Unions, and Employers

With regards to learning in the workplace, researchers find there is a lack of frameworks for measuring the different types of learning and because there is so much variation in New Brunswick workplaces, the creation of universal learning indicators to measure literacy, essential skills, formal and informal learning would be useful for businesses looking to create a learning organization.

- **Create flexible workplace learning programs tailored to employees**

Research has shown that learning programs are most effective when they are designed to meet the needs of both the organization and the workers (Kazi, 2008; Unwin, 2008; all Education and Learning; CCL, 2010). To do this, employers must create a program that will marry the individual’s learning needs with the needs of their organization (Ahlgren and Tett, 2010; Billett and Pavlova, 2005; Rhodes and Scheeres, 2004).

Learning programs can be organized in many ways, and because there are so many different types of workplaces in the New Brunswick labour market, it would be
useful for workplaces to consult the research on particular models\(^\text{42}\) and frameworks\(^\text{43}\) to find a programme to best suit their particular needs.

After focusing on program structure and frameworks, employers should then focus on the needs of their employees. When creating a learning organization, employers must consider differences in learning styles as well as barriers to accessibility (financial, structural, geographical or time-related) in order to better understand what learning means to their employees.

- **Collaboration**
  
  Lastly, it is important to recognize that in order to strengthen the relationships between the economy, politics and society as a whole, there needs to be collaboration and consensus between government, policy-makers, employers and employees (Nijhof, 2005).

  A 2009 report published by the "Advisory Panel on Labour Market Information in Canada" identifies gaps in labour market information and in education data. Research has also identified a gap in the analysis of Canadian literacy numeracy, workplace trends, specific sector-based skill needs (Saunders, 2009a). This means that with the upcoming changes in the New Brunswick labour market, employers and policy makers will all be looking for accurate and up-to-date information. Although governments have been the biggest provider of labour market data, private sector parties (employees, employers and unions) should also be involved in the collection and analysis of the data (Advisory Panel, 2009). The relationship between the employment and the skills deficit is complex and a better understanding of specific provincial labour markets is needed to ensure effective policy design.

  In addition, several Canadian reports have found a need for innovative funding models giving incentives for employers to invest in learning programs (Saunders, 2009a; Saunders, 2008). The Deliberative Roundtable on Learning in NB (Learn: For Life, 2012, p. 24) proposed the following action:

  "Design and implement a model for collaboration amongst private sector, non-profit and government employers that will transform our workplaces into learning environments, leading to increased productivity and innovation. This model would include the sharing of training sessions amongst employees of all sectors; the sharing of expertise whereby an employee of one sector provides training to employees of other sectors at no cost; and the provision of facilities to other partners for training purposes at no cost. Collaborative learning would be celebrated as would workplaces that are excellent learning places".

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\(^{43}\) For examples, see Tuomo's (2007) user-oriented, method-based and learning network projects; Scott, Butler and Edwards' action learning program (2001) or Wentland's Strategic Training of Employees Model (STEM).
Conclusion

The increasing demands of today’s knowledge economy means that in the coming years, skills and educational requirements will continue to shift and to change. As this report suggests, learned skills and knowledge play a key role in determining a country’s economic success and its overall quality of life (CCL: State of Learning in Canada, 2010: 4; CCL, Securing Prosperity, 2009; Coulombe and Tremblay, 2009; WLKC, 2007).

Although Canada boasts the highest percentage of adults having completed post-secondary education among OECD member countries44, a recent report identified “increasing innovation and productivity” as the first of five fundamental challenges (Canada 2020, 2011). In addition to a lag in productivity, the Canadian Chamber of Commerce says Canada is in the midst of a skills crisis. According to them, the Canadian economy is being held back by a growing shortage in skilled workers...("Canada's skills crisis", 2012).

In Canada, there is a need for more up to date information on Canadian participation in workplace training. The latest available data from the Adult Education and Training Survey (2002) are no longer relevant and although there are resources available that examine adult learning, there are many gaps in the data (Saunders 2009a; CCL, 2009). For example, even though Canadian research has found that adult's participation in informal learning continues into old age, less is known about the informal learning that takes place in Canadian workplaces (Livingstone, 2007; Zeytinoglu and Cooke, 2009).

Because workplaces are so different (as evidenced by the Canadian case studies), research on learning would also benefit from describing the different workplace learning environments, the resources and barriers for learning, how people think of and engage with learning and how they would benefit from learning opportunities.

Because workplaces are so different (as evidenced by the Canadian case studies), research on learning would also benefit from describing the different workplace learning environments, the resources and barriers for learning, how people think of and engage with learning and how they would benefit from learning opportunities.

The situation in New Brunswick is also pressing; we need to improve productivity, create better linkages between skills in the labour market and address literacy issues. Not only is the province suffering from a lag in productivity and in skills but it also faces staggeringly low literacy levels. In New Brunswick, an estimated 56% of the population does not have the necessary literacy and essential skills to cope with the expected challenges and the changing economy (Literacy Coalition NB, 2012). As the population ages, baby and boomers leave the workforce, increasing productivity and improving the essential skills of the labour force is essential to the province's future (CFIB, Building Prosperity for the Future, 2010; PSETL, Canada-New Brunswick Labour Market Agreement Annual Plan, 2011-2012; CÉNB, 2011).

These demographic projections suggest that New Brunswickers cannot afford to stop learning after they leave the formal school system. Despite its efforts to improve the situation, it is to act fast in order to adopt measures and create strategies that will help businesses remain competitive within the current economic context (PNB, Rebuilding NB Action Plan, 2012; CÉNB, 2011).

Regionally relevant and up-to-date research is needed to address important questions like:

- What kinds of skills are needed?
- What kinds of jobs are available in NB?
- What are the barriers experienced by employers and employees when it comes to workplace learning?
- Are employers providing their employees with learning opportunities?
- Who are the learners?

In New Brunswick, it would be beneficial to align future research with the economic development action plan. For example, researchers could study specific workplace learning programs within the six priority strategic sectors (Rebuilding NB, 2012). Future research could relate work on lifelong learning and learning in the workplace with the current government’s five objectives for economic development and economic renewal: (1) the creation of quality jobs; (2) more people working; (3) private-sector business growth; (4) focused and streamlined economic development efforts and (5) improved workforce readiness.

Although a number of different theories and perspectives in workplace learning have emerged, future research should approach learning in the workplace as a system that is inclusive, collaborative and complex (Davis and Sumara, 2001). Working knowledge should be described in terms of consciousness, identity, action and interaction, theory, objects, context and structure (Fenwick, 2001; 2008). By doing this, it may then be possible to combine the macro and micro perspectives of learning, re-examine the concept of workplace learning as a lifelong process, provide equal access to learning opportunities and create appropriate policies (Nielsen and Kvale 2006; Tanggard, 2009; Bierma, 2002).

The development and creation of a learning province requires a significant shift in our approach to workplace learning. Only then will we be able, as policy makers, government officials, employers and employees to understand the interconnectivity and the complexity of learning. Funded by the Department of Post-Secondary Education, Training and Labour in partnership with the University of New Brunswick and with the NB2026 Citizen Engagement Initiative on Learning, this report has not only summarized the literature on workplace learning in provincial, national and international contexts but has provided the reader with a list of recommendations. It is hoped that the review of the literature and the recommendations in this report will help to contribute to this shift in consciousness.
Appendix A: Tables

Table 1.


Table 2


*See CCL, Securing Prosperity p.24
Table 3.

Table 4.

Table 5.

Appendix B: Workplace Learning Tools and Resources

The Conference Board of Canada "Learning Tools"
http://www.conferenceboard.ca/topics/education/learning-tools.aspx
This website includes an extensive list of online self-assessment tools for individuals as well as learning performance indexes and toolkits for organizations for the assessment and development of skills needed to thrive in today's workplace (some free and some for purchase).

The Conference Board of Canada's Business and Education IdeaBooks
http://www.conferenceboard.ca/topics/education/best-practices/ideabook.aspx
Each IdeaBook contains the profiles of recipients in the "Awards for Excellence in Workplace Literacy" and the "Community Learning Awards". The IdeaBooks would be ideal for employers inspired to develop workplace literacy, learning and education programs.

National Adult Literacy Database
www.nald.ca
The National Adult Literacy Database (NALD) Inc. is a Canadian non-profit registered charity that provides internet-based literacy and essential skills information and resources in both of Canada's official languages. Since its beginnings in 1989, NALD has acted as an important resource for both learners and practitioners. In 2010-2011, NALD's website services were accessed by an estimated 4 million users who viewed and downloaded more than 10 million documents free of charge.

The New Brunswick HR Portal
http://nbhrportal.ca/?page_id=30
The portal website acts as a resource for small business owners looking to improve their human resource (HR) management. More specifically, the resources are categorized into four key topics: basic HR tools; finding the right workers; keeping employees and employee performance.

NextGenNB
http://nextgennb.ca/
The NextGenNB website acts as a portal for the project whose mandate is to share youth friendly best practices and strategies with New Brunswick employers looking to attract and retain youth within their organizations. Their "Employer Guide", which includes tips and best practices, is available for free download on their website.
Appendix C: New Brunswick Initiatives Inventory

The following paragraphs will serve as an inventory describing the various programs, services and initiatives that have been developed in the last decade relating to both workplace learning and the development of adult literacy and essential skills.

Workplace Learning

NB2026 Citizen Engagement Initiative on Learning

Learning: Everybody’s Project is sponsored by the NB2026 Roundtable, comprised of 36 interested and committed New Brunswickers, representing a cross-section of communities, social, economic, political, cultural and linguistic groups in New Brunswick, the group also included several government officials. The purpose of the Round Table is to provide a forum to promote engagement and to develop broad consensus around the province’s long term prosperity objectives, priorities, and strategies. In 2009, NB2026 identified a list of priority issues that it felt could bring about positive results and have the greatest impact on the province’s future through governmental and extra-governmental efforts. The Roundtable determined that first and foremost, New Brunswick must promote a culture of learning as this is a fundamental building block. Building a culture of learning would promote individual and collective responsibility for lifelong learning. Learning at home, at “school”, in the community and at work.

After identifying four key priorities the Roundtable endorsed a citizen engagement process on learning. The initiative aimed at connecting citizens of all ages and from all corners of the province and was called “Learning, Everybody’s Project”. Citizen engagement differs from public consultation in that it shares the responsibility for planning, design and implementation of the initiative with individual citizens, community organizations, and the business and government sectors. Its goals include: collaborative citizen engagement; a collective understanding and eventual vision of achieving a culture of lifelong learning in New Brunswick; as well as the implementation of an action plan.

The citizen engagement process had four phases:

1. Outreach Phase—Spring to Fall 2011: The objective of the Outreach phase was to “get the message out” to New Brunswickers about the project by using a variety of methods.
2. Public Dialogue Phase—January to April 2012: The Public Dialogue sought the citizens’ ideas as to what issues need to be addressed.
3. Provincial Roundtable Deliberation Phase—May and June 2012: The

45 The list of members can be found at www.nb2016.ca/members.
46 Identified as: learning at home; learning at “school”; learning in the workplace and learning in the community (Learning Everybody’s Project, 4).
Provincial Roundtable Deliberation phase brought together a cross-section of informed citizens with expertise regarding the issues around learning in New Brunswick. Using the input proposed by New Brunswickers at the public dialogue phase, the roundtable participants ‘deliberated’ and weighed which of the actions would be the best ones. The information of the Provincial Roundtable Deliberative Phase is presented in the document “Learn: For Life!”.

4. **Provincial Forum Phase:** The Provincial Forum phase was a two day session where invited participants were asked to endorse a vision statement and guiding principles, discuss the proposed actions, agree on which options should be carried out, determine who will lead the implementation of the actions and how the plan will be monitored.

**New Brunswick Skills summit**

The 2007 Skills Summit was a collaborative project that brought together dialogues from both a working group and a roundtable. The discussions between participants and facilitators centered on issues in human resource management, organizational training and attempted to create processes to identify gaps in provincial labour market information and to create linkages between post-secondary educational institutions, industry, public agencies and government.

**2006 National Symposium, Adult Learning Knowledge Centre**

Launched in 2005, the Adult Learning Knowledge Centre (ALKC) is based at the University of New Brunswick’s College of Extended Learning. Its purpose is to serve as a national centre of expertise and action in the arena of adult learning, facilitating an exchange of ideas, best practices, and common challenges. ALKC works with four other knowledge centres located across Canada: Aboriginal Learning, Early Childhood Learning, Health and Learning and Work and Learning.

The Symposium, which brought together more than 150 Canadian participants from universities, community colleges, government departments and non-profit and community-based organizations, included discussions, debates and reflections on how to foster and strengthen a culture of learning for all Canadians. More specifically, their recommendations for adult learning included the creation of a national celebration of adult learning; the creation of a portal designed to be the Adult Learning Knowledge Clearinghouse; as well as the creation of a Canadian adult learning thesaurus.

**UNB College of Extended Learning**

UNB’s College of Extended Learning offers customized, flexible and cost-effective in-

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48 UNB College of Extended Learning, Customized In-Company Training: [http://www.unb.ca/cel/career/training/index.html](http://www.unb.ca/cel/career/training/index.html)
company training solutions for supervisors and managers. Their website specifies the following services:

1. Help you define your organization’s training needs and priorities;
2. A national roster of expert instructors using interactive learning techniques to suit all learning styles;
3. Deliver the training in the location that's best for you - here on campus, at your workplace or elsewhere;
4. Help you assess the impact of the training and develop follow-through initiatives.

**Université de Moncton, Éducation permanente**
L’éducation permanente de l'Université de Moncton des cours et des formations de perfectionnement professionnel. Ayant pour but de contribuer au développement personnel et professionnel, l’Université offre des activités de perfectionnement conçues pour assurer une intégration immédiate au milieu du travail.

**FutureNB**
Formed following a Summit in November 2010, FutureNB is participating in a number of projects aimed at identifying and developing the participation in New Brunswick’s growing business sectors. Ultimately, the group is looking to develop an action plan that would make recommendations on how to increase competitiveness, investments, infrastructure and overall economic success.

**Adult Literacy and Essential Skills Programs**

There are a number of programs and services offered throughout the province for adults. They range from interaction with small children/parenting skills/life skills to completing high school equivalency to workplace programs and others. The following resources were identified in prior research and have been included here for their relevancy.

**The Department of Post-Secondary Education, Training and Labour’s Workplace Essential Skills (WES) Program**

Development of the WES program began in 2009 with the intent of assisting employees and those actively seeking employment to acquire or enhance the essential skills needed in today’s workforce. Training is customized in order to identify labour-force gaps and to

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50 For program information see: [GNB’s website on Workplace Essential Skills](#).

51 This program identifies the following essential skills: reading; document use; numeracy; writing; oral communication; working with others; thinking; computer use and continuous learning as the “foundational skills required to successfully participate in the Canadian labour market” (Community Adult Learning Services Branch, 2011).
provide employers with assistance in the recruitment, retention and adaptation of their workplace and is offered across the province.

**Literacy Coalition of New Brunswick (LCNB)**

Founded in 1988, the LCNB has carried out projects in the areas of literacy research, access and outreach, co-ordination and information sharing, public awareness and has also developed learning materials. Its mission is to "provide leadership to advance literacy, lifelong learning and essential skills for all citizens through partnerships and collaboration with government, educational institutions, business, labour, community organizations and individuals". Their work in the area of workplace learning includes the recent publication of a booklet for employers, unions and the business sector that focuses on literacy shortages in NB, improvements to literacy and essential skills in the workplace, regional case studies as well as a short list of relevant programs and resources. Titled “Guide to Understanding Literacy & Essential Skills”, the booklet is available on their website.

**Community Adult Learning Program (CALP)**

A program offered by the New Brunswick Department of Post-Secondary Education, Training and Labour in collaboration with teachers, employers and community-based educational agencies with the objective of improving literacy levels in the province. The program is free of charge and provides personalized academic services for grade levels 1 through 9. As well, the Community Access Program provides many rural and urban citizens with computer access to online courses ranging from parenting and volunteer training to GED completion.

**The Community Academic Services Program (CASP)**

This Adult Literacy Network offers a number of programs and services to adult learners designed to advance adult education, literacy and lifelong learning in New Brunswick. This network also employs a number of teachers in various locations across the province.

**Laubach Literacy Councils**

Laubach Literacy, founded in 1975, provides training and certification to volunteers in order to offer free tutoring for adult learners in basic literacy and numeracy across the province.

**The Saint John Learning Exchange**

The Saint John Learning Exchange is a non-profit adult education organization which offers education, literacy and essential skills training which help adults in the workplace. For example, the organization offers the following programs:

1. Basic Education Skills Training (BEST) provides assistance to young adults with GED and general upgrading, self-development skills, pre-employment skills;

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2. Workplace Essential Skills program, a 15 week full-time program;
3. Pathways out of Poverty is another program that helps direct the learner to either a job, trade, GED, college or university.
Appendix D: Research Methodology

This literature review examines previous work on learning in the workplace for the period 2000 to 2012 inclusive. The objective of this review is to classify the current state of workplace learning research not only in New Brunswick but also in Canada and around the world. The following resources have been limited to electronic journal articles and includes: research papers, technical papers, and literature reviews, and does not include: case studies, conceptual papers, general reviews and viewpoints.

Academic Databases

Step 1: Identification of research databases

The relevant research databases were identified using the University of New Brunswick’s (UNB) electronic library under the subject headings “Sociology”, “Education” and “Business”.

The key databases identified were: Sociological Abstracts, Communication & Mass Media Complete (CMMC), Academic Search Premier, SocINDEX with Full Text, Econlit and Public Affairs Information Service (PAIS) International and Archive, ERIC, Canadian Business and Current Affairs (CBCA) Education, PsycINFO and Business Source Premier. More specifically, the search was conducted on six sociology databases, three education databases and one business database.

Steps 2: Identification of the journals

Each database was searched for “Workplace Learning”. If possible, the searches were limited to English peer-reviewed journal articles dating from 2000 to 2012. From this search, the top seven journals were selected from the results unless the search returned less than seven journals.

This produced a total of fifty-four journals. The duplicates, along with the journals with no accessibility were removed from the list leaving thirty-six “Workplace Learning” journals.

Step 3: Identification of the articles

The 36 “Workplace Learning” journals were searched using the search phrase “Workplace Learning”. After limiting the search to include only full-text English articles from 2000-2012, a total of 679 articles were found in all of the selected journals.

Step 4: Selection of the Articles

Step 3 provided an extensive list of articles on workplace learning. However, to identify and select the articles with a primary or secondary focus on workplace learning, the “keywords” section was examined using workplace learning control vocabularies. The control vocabularies were developed with my employer. The following
keywords were controlled for: workplace learning, organizational learning, learning, lifelong learning and training. The articles that did not have a keywords section were scanned for the presence of the above-mentioned terms in their titles and abstracts. Those that did not have these terms or those deemed too specific (for example: Promoting inter-professional teamwork and learning- the case of a surgical operating theatre” or “Learning, knowing and controlling the stock: the nature of employee discretion in a supermarket chain”) were not selected. Those that did not include research on learning in a work environment were also not included. An additional nine journals were eliminated due to zero articles from the controlled search. This resulted in a total of 191 articles.

National Adult Literacy Database

Step 1: Identification of the articles

Searching the NALD database for “workplace learning” and removing the duplicates, presented a total of 48 research and learning materials for the years 2000-2012 inclusive.

The results consisted of 21 “Conference Board of Canada’s Education and Learning Case Studies” dated from 2000-2005; and 28 relevant Canadian reports.

Keywords and emergent fields/ subjects were selected from the list provided by the NALD and controlling for the above-mentioned keywords: workplace learning, organizational learning, learning, lifelong learning and training.

Keyword analysis

An analysis of the key words found the following words to be most often selected by the authors.

This analysis can help us see how the controlled keywords: workplace learning, organizational learning, learning, lifelong learning and training compare to the ones chosen by the authors to represent learning in the workplace.
Bibliography


Learning in the Workplace


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