



BACKGROUND PAPER

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MEASURES OF SUCCESS: WORKPLACE LITERACY AND ESSENTIAL SKILLS INITIATIVES PROJECT*

The Measures of Success: Workplace Literacy and Essential Skills Initiatives project seeks to adapt and test an evaluation model that will measure long-term impacts of workplace literacy and essential skills (LES), to demonstrate the value of this investment to employers and to motivate workers and employers to engage in LES in the workplace. Working from a recent evidence-based model from New Zealand that integrates quantitative and qualitative measures, the project partners will apply it to ten sites each in Manitoba and Nova Scotia to compare outcomes. The project will contribute to the research base around key evaluation questions in literacy and essential skills.

The project partners are Workplace Education Manitoba, Nova Scotia Department of Labour and Workforce Development, and The Centre for Literacy, as managing partner, with support from Canadian Council on Learning and from a New Zealand researcher. The three-year project (2009-2012) has been funded by the Office of Literacy and Essential Skills (OLES), Human Resources and Skills Development Canada (HRSDC).

BACKGROUND PAPER

This Background Paper has been written to provide a historical context for the project. The paper draws heavily on a comprehensive literature review published in August 2009.¹ Supplemental research was conducted in September and October 2009, with further additions between January and April 2010.

This paper identifies the project goals and research questions and defines LES with reference to the Canadian context and notes definitions used in other countries. Starting from the goals of the project, the paper focuses on LES evaluation, highlights current dominant practice in measuring outcomes and discusses recent thinking about additional or alternative ways to capture a range of outcomes for learners, to employers, and communities. It provides an overview of recent knowledge and practice in workplace LES, highlighting best practices. The final sections describe workplace LES policy and initiatives in Manitoba and Nova Scotia, where the evaluation model developed by this project will be applied. The profiles outline evaluation models currently in use and notes similarities and differences. The paper concludes with an extended bibliography.

* The project proposal title was *Workplace Literacy and Essential Skills Initiatives: Measuring and Legitimizing Success to Expand Access*. The shorter title is now being used to identify it.

¹ Maria Salomon, "Workplace Literacy and Essential Skills. What Works? And Why?. Literature Review," Montreal: The Centre for Literacy of Quebec, 2009: <http://www.nald.ca/library/research/cfl/wles/wles.pdf>, prepared for the 2009 Annual Summer Institute of The Centre for Literacy. This review built on an earlier report drafted in 2006 by Alison Gray for the Department of Labour of the Government of New Zealand for a three-year project on "upskilling" the literacy, language and numeracy (LLN) skills of the New Zealand workforce at the low-skilled end.

EXECUTIVE SUMMARY

PROJECT GOALS

The goals of the project are:

- To increase capacities to evaluate effectiveness and measure the long-term impact of workplace LES programs
- To demonstrate the benefits of using a common measure to compare outcomes within different programs and across jurisdictions

RESEARCH QUESTIONS

The draft research questions, which were still under development as of May 2010, are:

- What is a reliable model for evaluating the long-term impacts of workplace LES initiatives?
- What are the long-term impacts of workplace LES initiatives on the participants, workplaces, and companies?
- What are effective and efficient ways to provide workplace LES initiatives to maximize positive long-term impacts?

The main points of the Background Paper are summarized below.

DEFINING LITERACY AND ESSENTIAL SKILLS

In this paper, Essential Skills refers to the set of nine skills defined by HRSDC in 1994 through the Essential Skills Research Project as “the skills needed for work, learning and life. They provide the foundation for learning all other skills and enable people to evolve with their jobs and adapt to workplace change.” However, the term “essential skills”, as used in other countries, does not refer precisely to the same set of skills identified in Canada. Terms such as literacy, numeracy, basic skills, key skills, skills for life, foundational skills or competencies, are also used. The Organization for Economic Co-operation and Development (OECD), through its DeSeCo project, identified a small set of “key competencies” that highlight the need to think and act reflectively. More recently, the OECD has broadened the scope of its enquiry into skills and competencies to identify the impacts of learning or education on society “beyond economic and employment effects” in its *Social Outcomes of Learning Project (SOL)*.

BEST PRACTICES

Many discussions, studies and initiatives connected to strengthening LES in the workforce in the past twenty years have allowed us to identify a cluster of best practice components related to the design, implementation and sustainability of workplace LES training programs. At the program level these include employer commitment, a culture of learning, stakeholder collaboration, and careful planning and design from needs assessment to evaluation. At the delivery level, the best LES programs are flexible,

customized, contextualized, use blended learning approaches appropriate to diverse learners, control quality, and evaluate at all stages. Government engagement is critical at the policy level to promote, support and guide strategies and to provide financial and other systemic supports. Best practice includes:

- *The active involvement and collaboration of government, employers and unions*
- *Evaluation*

WHAT IS BEING MEASURED AND HOW

Evaluation is an integral part of workplace literacy and essential skills (LES)² training initiatives. Its importance is stressed in the research literature. Despite this consensus, evaluation has been inadequately employed and studied.

Evaluation of workplace LES training initiatives has traditionally focused on capturing learner outcomes. Employer impacts, including enhanced productivity, have not been evaluated to the same extent. More recently, there has been an interest in Canada and internationally in documenting such outcomes. Overall, however, workplace LES evaluation has been dominated by qualitative approaches to measuring outcomes, with quantitative data related largely to program outputs.

There is debate over appropriate evaluation methods. Some experts believe that evaluation methods should be more rigorous i.e. formal, quantitative, scientifically-informed, and focus more on employer outcomes or impact. Others argue that a qualitative approach is well-suited to capturing outcomes that quantitative methods can miss or capture imperfectly, in particular improvements in soft skills, or employee attitudes and behaviours in relation to their work, colleagues and employer. There are many barriers to evaluation including the lack of resources and capacity, but also related to the traditional tensions between quantitative and qualitative researchers and to the complex nature of the evaluation process.

- *Best practice increasingly calls for a mixed qualitative-quantitative approach to evaluation to measure or capture both learner and employer outcomes in the workplace, family, community and society at large.*

OUTCOMES OF WORKPLACE LES TRAINING — A GROWING INTEREST IN SOFT SKILLS

There is considerable evidence on the positive outcomes of workplace LES programs for learners, such as improvements in reading, writing,

² LES is sometimes referred to in the literature as WES (workplace literacy and essential skills).

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and oral communication, numeracy, ability to use computers and understand machines.

Several recent international and Canadian studies have documented significant learner outcomes in soft skills, such as improved confidence, morale, self-esteem, job satisfaction, engagement, initiative, teamwork and interest in learning. These studies have also shown that employers value these outcomes and are able to link them to business success, such as an improved bottom line.

- *Recent studies point to significant learner outcomes in terms of soft skills, and employer interest in developing these suggest that evaluation should incorporate measures to capture improvements in both hard and soft skills.*

HUMAN AND SOCIAL CAPITAL APPROACHES TO WORKPLACE LES TRAINING

A discussion in the literature relates to whether workplace LES programs should be seen primarily as a tool for generating human capital through the acquisition of skills and knowledge in the interests of employers, business and the economy more broadly, or as a means to develop social capital to the benefit of learners, their families, communities and society as a whole.

Policymakers in Canada and other industrialized countries have tended to focus on human capital, an approach that some see as too narrow. Advocates of the social capital approach argue that workplace LES education can help learners develop skills needed for work, as well as the ability to build social relationships and networks based on trust and shared values, contributing ultimately to community well-being and democracy, social equity and justice.

- *Recent studies have proposed that workplace LES programs and evaluation models take a more global perspective and consider both approaches. They suggest that the development of human and social capital need not be competitive or exclusive, but mutually supportive and beneficial.*

WORKPLACE LES IN MANITOBA AND NOVA SCOTIA

Manitoba and Nova Scotia have supported workplace LES for almost two decades. This is reflected in the adoption of skills policy frameworks and action plans, the creation of workplace LES initiatives, Workplace Education Manitoba (WEM) and the Workplace Education Initiative (WEI)

in Nova Scotia, supported by business and labour, and significant and sustained investment in workplace programs.

- *In both provinces, the success of workplace LES training initiatives has been attributed to the best practice components of the programs offered, the involvement of WEM in Manitoba and WEI in Nova Scotia, and customized program design and implementation, which is a critical factor for small- and medium-size enterprises (SMEs) comprising over 90 percent of employers in both provinces.*

EVALUATION PRACTICE IN WORKPLACE LES IN MANITOBA AND NOVA SCOTIA

Evaluation in both provinces — as has been the dominant approach for years in Canada and abroad — focuses on learner outcomes and relies almost exclusively on qualitative sources of information and techniques to assess employer outcomes such as productivity/impact. Nova Scotia has recently modified its evaluation approach in an attempt to capture employer gains.

For the project partners, the obstacles to a more quantitative, employer-focused approach include limitations imposed by funding agreements with government, the constraints of resources, time, and staff facing SMEs, and employers' concerns about confidentiality and liability. These will have to be addressed when considering whether, how and to what extent to shift to measuring employer outcomes.

LOOKING AHEAD TO THE PROJECT

Measures of Success: Workplace Literacy and Essential Skills Initiatives proposes to use learning from a recent New Zealand project to develop an evaluation model to measure the long-term impacts of workplace LES training initiatives in Manitoba and Nova Scotia using multiple methods, qualitative and quantitative. The project directly addresses critical evaluation issues discussed in this paper.

Agreeing on and applying an expanded common evaluation model grounded in best practice principles to workplace LES training programs in these provinces will make it possible to assess and compare success factors and outcomes — a result with policy and practice implications for governments and employers in both provinces, as well as across the country and abroad.

INTRODUCTION

THE PROJECT

This paper is a background document for *Measures of Success: Workplace Literacy and Essential Skills Initiatives*, a three-year project funded by the Office of Literacy and Essential Skills (OLES), Human Resources and Skills Development Canada (HRSDC) and managed by The Centre for Literacy, in partnership with Workplace Education Manitoba, Nova Scotia Department of Labour and Workforce Development, with support from Canadian Council on Learning and from a New Zealand researcher.

The project seeks to adapt and test an evaluation model to measure long-term impacts of workplace Literacy and Essential Skills (LES),³ to demonstrate the value of this investment to employers and to motivate workers and employers to engage in LES in the workplace. Adapting a recent evidence-based model from New Zealand that integrates quantitative and qualitative measures, the partners will apply it to ten sites each in Manitoba and Nova Scotia to compare outcomes.

THE BACKGROUND PAPER

The background paper lays out the research that underpins the evaluation model to be adapted and tested at the twenty work sites in the next stages of the project.

The paper is organized as follows:

- The **Introduction** identifies the project goals and the draft research questions which frame the paper. This section defines LES with reference to the Canadian context and notes definitions used in other countries.
- **Section One** focuses on evaluation, highlighting current practice and discussions about how outcomes are commonly measured and alternatives.
- **Section Two** outlines what we know about the outcomes of workplace LES for learners and employers and summarizes different perspectives on the purposes and goals of these initiatives.
- **Section Three** provides an overview of recent knowledge and practice in workplace LES with a focus on best practices.
- **Sections Four and Five** describe workplace LES initiatives in Manitoba and Nova Scotia, where the evaluation test model developed by this project will be applied. The profiles focus on current evaluation models and reported outcomes.

* The project proposal title was *Workplace Literacy and Essential Skills Initiatives: Measuring and Legitimizing Success to Expand Access*. The shorter title is now being used to identify the project.

³ LES is sometimes referred to in the literature as WES (workplace literacy and essential skills).

RESEARCH METHODS

The research for this paper is drawn from several strands. Leading up to this project, The Centre for Literacy focused its 2009 Summer Institute on workplace LES. Prominent international policy-makers, providers and researchers engaged in intense and reflective discussion of the issue in the past two decades. Prior to the Institute, a comprehensive literature review was written entitled *Workplace Literacy and Essential Skills: What Works? And Why?*⁴ **Sections One, Two and Three** summarize relevant portions of the 2009 review; page numbers in parentheses in these sections refer to that review. Citations that refer the reader to original sources from the review or to new research are in standard parenthetical format. The **Bibliography** includes all sources cited in this paper, including web pages consulted.

Supplemental research was conducted in September and October 2009, with further additions between January and April 2010. The researcher also had access to several unpublished program evaluation reports from Manitoba, an unpublished evaluation plan that informed the current evaluation model in Nova Scotia and a recent HRSDC report on the impacts of workplace LES training in small- and medium-sized Canadian enterprises, with a focus on Nova Scotia's Workplace Education Initiative. Short interviews with representatives from the two provincial partners provided insight into the context and various factors that underlie the choice of evaluation models in each province.

GOALS OF THE MEASURES OF SUCCESS PROJECT

- To increase capacities to evaluate effectiveness and measure the long-term impact of workplace literacy and essential skills programs
- To demonstrate the benefits of using a common measure to compare outcomes within different programs and across jurisdictions

RESEARCH QUESTIONS

The draft research questions, still under development when this paper was written, are:

1. What is a reliable model for evaluating the long-term impacts of workplace LES initiatives?
2. What are the long-term impacts of workplace literacy and essential skills (LES) initiatives on the participants, workplaces, and companies?
3. What are effective and efficient ways to provide workplace LES initiatives to maximize positive long-term impacts?

⁴ Maria Salomon, "Workplace Literacy and Essential Skills. What Works? And Why?. Literature Review," Montreal: The Centre for Literacy of Quebec, 2009: <http://www.nald.ca/library/research/cfl/wles/wles.pdf>. This review built on an earlier report drafted in 2006 by Alison Gray for the Department of Labour of the Government of New Zealand as part of a three-year project on "upskilling" the literacy, language and numeracy (LLN) skills of the New Zealand workforce at the low-skilled end.

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“Long-term” as used in the research questions refers to outcomes that extend beyond those normally measured in the course of, or immediately following, a workplace LES training program. From an employer or business perspective, long-term outcomes may relate to an increase in productivity. From a learner perspective, they may relate to positive changes in employee attitudes and behaviours that are reflected in their engagement and performance at work (with the potential to have impact on productivity), their appreciation of learning, and their relationship with and involvement in family, community and society more broadly.

LES IN THE CANADIAN CONTEXT

A recent report for the Canadian Council on Learning (Bailey 2007: 4) stated that “the most important factor explaining the difference in economic growth between countries is the relative level of skills of their workforces”. This is borne out in the Statistics Canada finding that “investment in education and skills training is three times as important to economic growth as investment in physical capital”. These findings, along with new work systems and processes, demographic shifts, and the globalization of the economy, are fuelling concern among Canadian employers and government about serious skills gaps in the current workforce and a shortage of skilled labour in the years ahead. Consequently, there is an increasing interest in, and call to improve, the skills of workers now in the workforce, including older workers and the less educated, and provide skills training opportunities to the new cohort (Salomon 2009: 1; Murray 2009: 3, 13-14, 57; CCL 2009a: 5-7, 27, 71; CME 2008: 12; Folinsbee 2007: 3-4).

DEFINING LES

Workplace Education Manitoba, a leader of LES policy and initiatives in Canada, explains the relationship between literacy and essential skills as follows:

The original literacy skills – the three R's (reading, 'riting and 'rithmetic) – allow an individual to survive. These are still largely considered to be the minimum skills required for individuals to secure employment that provides food, shelter and the basic necessities. However, for the workforce of today and tomorrow, more skills are required on top of those original three. So, while proficiency in prose literacy (the reading part of the 3 Rs) learned in school is a highly desirable skill for becoming an educated, informed individual, having that skill does not necessarily mean that the person can read and understand a blueprint, data sheet or technical instruction manual at work. It takes more to be successful in the workplace and in society overall.⁵

The “more” is an enlarged set of skills often called Essential Skills (ES). In this paper, ES refers specifically to the set of nine skills defined by HRSDC in 1994 through the Essential Skills Research Project. That framework

⁵ http://www.wem.mb.ca/Workplace_Essential_Skills_overview.aspx

defines them as “the skills needed for work, learning and life. They provide the foundation for learning all other skills and enable people to evolve with their jobs and adapt to workplace change.”⁶

ESSENTIAL SKILLS (HRSDC)

reading text	working with others
document use	continuous learning
numeracy	thinking skills
writing	computer use
oral communication	

The 1994 project produced a methodology to help document how the nine ES are applied in Canadian occupations, using a template called the Essential Skills Profile (Hennessey 2009: 1, 3).

OTHER DEFINITIONS OF LES

The term “essential skills” is used in other countries, but does not refer precisely to the same set of skills identified by HRSDC in the Canadian context. The United Kingdom, Australia and New Zealand have frameworks that define skill areas or domains and levels. In New Zealand, the Online Learning Centre for public schools identifies essential skills as communication skills, numeracy skills, information skills, problem-solving skills, self-management and competitive skills, social and co-operative skills, physical skills and work and study skills. In Ireland, essential skills are defined as literacy and numeracy, which include “the ability to communicate by talking and listening, reading and writing; to use numeracy; and the ability to handle information”, skills connected in one degree or another to communication, computer use, interpersonal relations, problem-solving, report writing, and important workplace issues such as health and safety, and customer care (Hennessey 2009: 1-2; Bailey 2007a: 16). Other terms are also used, including competencies and foundational skills. In the UK, literacy, numeracy, basic skills, key skills and skills for life are used interchangeably (Hennessey 2009: 1-2).

THE DESECO FRAMEWORK

In some contexts, “competencies” or abilities is the preferred term. In recent years, through the DeSeCo Project (Definition and Selection of Key Competencies) and in collaboration with numerous scholars, experts and institutions, the Organization for Economic Co-operation and Development (OECD) has identified a small set of “key competencies” that individuals need to “face the complex challenges of today’s world” (OECD/DeSeCo 2005: 4).⁷ These fall into three broad intersecting categories:

⁶ http://www.hrsdc.gc.ca/eng/workplaceskills/essential_skills/general/understanding_es.shtml

⁷ See also, http://www.oecd.org/document/17/0,3343,en_2649_39263238_2669073_1_1_1_1,00.html

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- ability to use a wide range of tools to interact effectively with the environment ("Use" means understand and adapt, while "tools" refers to physical tools such as information technology; and socio-cultural tools, such as language)
- ability to interact in heterogeneous groups (covers engagement with others)
- ability to act autonomously (includes take responsibility for managing one's own life and situate it within the broader social context)

The DeSeCo framework highlights the need to think and act reflectively. "Reflectiveness involves not just the ability to apply routinely a formula or method for confronting a situation, but also the ability to deal with change, learn from experience and think and act with a critical stance." (OECD/DeSeCo 2005: 5)

This framework is of potential interest to those doing workplace training because it integrates a more nuanced concept of essential skills than many models.

THE SOCIAL OUTCOMES OF LEARNING PROJECT

Since DeSeCo, the OECD has broadened the scope of its enquiry into skills and competencies. A current initiative seeks to identify the impacts of learning or education on society "beyond economic and employment effects". *The Social Outcomes of Learning Project* (SOL) explores "the causal links between education and major social domains such as health (mental and physical) and civic engagement... [and] also covers the way parental education affects the lives of younger generations, and the way the benefits of education are distributed across different social groups."⁸ Ultimately, the project aims to illuminate "the links between learning and well being" to inform policy and potentially use education to enhance the well being of individuals and societies and "achieve greater equity in the distribution of well being."⁹

As noted, the *Measures of Success* project is interested in the long-term impacts of workplace LES initiatives (Research Question #2). In this connection, the OECD's current work on education and its wider benefits or outcomes intersects with the project's goals and can help inform its line and method of enquiry.

⁸ http://www.oecd.org/document/9/0,3343,en_2649_35845581_33706505_1_1_1_1,00.html. The first results of this work appear in the new CERI publication *Understanding the Social Outcomes of Learning*. A companion report which provides more detailed analysis is freely downloadable on www.oecd.org/edu/socialoutcomes/symposium.

⁹ http://www.oecd.org/document/20/0,3343,en_2649_35845581_35674452_1_1_1_1,00.html

SECTION ONE:

EVALUATING WORKPLACE LES PROGRAMS

CURRENT PRACTICE AND ISSUES

THE IMPORTANCE OF EVALUATION

Evaluation has been identified as an over-arching component of workplace LES training, an integral part of the program from beginning to end (CAEL 2006: 5, 103). Its importance is stressed in the literature (Gray 2006: 36-7; Folinsbee 2007: 23-5; and WfDB 2007: 21). Through evaluation, stakeholders receive the information they need to assess the value of a training program and make decisions both during implementation and after it has ended. Effectively conducted, the evaluation process will indicate the extent to which a program is meeting its goals as well as identify unexpected results and inform decisions about whether to continue the program and how to improve it (15).

Despite its importance, evaluation has been, to date, inadequately used and studied. Some experts note a serious research gap, particularly with regard to comparative evaluation studies (Tsi and Shang 2008: 214-15; Praxis 2009: 29-30). Various barriers to evaluation have been identified that impede both practice and research; they include lack of interest or initiative, managerial, union and/or staff resistance, time/personnel/resource constraints, privacy issues and the difficulty of the process. The Workplace Learning Project, which explored employer concerns over hiring, retaining and promoting workers with low literacy skills in the BC Capital Region, reported that evaluating the impact of workplace LES training programs “is often beyond the means of small businesses” (READ 2009a: 17). In some cases, the debate over appropriate research methods and what counts as evidence creates a barrier.

The experience of Manitoba and Nova Scotia (see *Sections Four and Five*) speak directly to these issues and provide insight into how workplace LES training programs in these provinces have carefully navigated around barriers and constraints to design and implement evaluations that elicit the information stakeholders need to assess outcomes.

WHAT IS COMMONLY MEASURED

Where evaluation is implemented, the process has traditionally focused on learner outcomes. These are outlined in the widely-used Kirkpatrick evaluation model [see Table, p.15] in the first three levels: Level 1/*Reaction*, Level 2/*Learning* and sometimes Level 3/*Knowledge Transfer*. This is evident in current evaluation practice in Manitoba and Nova Scotia, although Nova Scotia has recently made efforts to also report on employer gains. From an international perspective, there is a growing emphasis on measuring employer gains, i.e. impact or increased productivity (Level Four) (16-19).

I. EVALUATING WORKPLACE LES PROGRAMS

CURRENT PRACTICE AND ISSUES

KIRKPATRICK'S FOUR LEVELS OF EVALUATION

LEVELS	INDICATORS
1. <i>Learner reaction to the program ("smilesheet" — most commonly evaluated level)</i>	<p>Learners:</p> <ul style="list-style-type: none"> • were satisfied that program met their needs, goals • were satisfied with the implementation of the program • were satisfied with: the program's relevance to their work, curriculum, pedagogical approach, instructors, scheduling, facilities • completed the program • would recommend the program to others
2. <i>Learning/knowledge acquisition</i>	<p>Skills gains — skills were upgraded or new skills were learned</p> <ul style="list-style-type: none"> • LES or specific components of LES (however defined where the program is offered, for example as defined by HRSDC in Canada) • job-specific knowledge and skills ('hard skills') • changed learner attitudes ('soft skills') — improved morale, self-confidence, job-satisfaction, interest in further learning
3. <i>Learning/knowledge transfer (to many, the "truest assessment of a program's effectiveness")</i>	<p>Skills learned were applied to work — learners improved at:</p> <ul style="list-style-type: none"> • performing and completing job tasks • understanding, organizing, planning, problem-solving • team work • working independently • interacting with others (written and oral communication, e-mail) • using new technology • taking initiative (participating in workplace committees, union activity)
4. <i>Impact on the business or productivity (the "bottom line" — least evaluated level)</i>	<p>Productivity improved:</p> <ul style="list-style-type: none"> • less absenteeism • fewer workplace accidents • less waste • increased employee retention • better sales • cost savings • quality improvements • improved customer service • more promotions and wage increases

I. EVALUATING WORKPLACE LES PROGRAMS

CURRENT PRACTICE AND ISSUES

MOVING TOWARDS NEWER PRODUCTIVITY MEASURES

Measuring Return on Investment/ROI, a relatively new Level 5 in the Kirkpatrick model, is being advocated more often, but remains on the margins of practice because of the complexity and substantial expense of the exercise, particularly for smaller organizations (18-19). Some recent literature on LES training evaluation also calls for cost and efficiency analyses to help employers make financially feasible training choices and “use existing resources more efficiently.” Such analyses, described by some experts as “a matter of urgency”, are also seen as important in terms of informing policy (Tsi and Shang 2008: 214-15).

QUANTITATIVE VERSUS QUALITATIVE EVALUATIONS

The research community is often divided over questions of quantitative and qualitative methods, and professionals tend to be trained in one school or the other. Governments strongly favour statistically reliable research, while people in the field tend to put more trust in qualitative indicators derived from practice. Traditionally, LES evaluation practice has been dominated by qualitative approaches to measuring outcomes, with quantitative data gathered largely on program outputs, for example, the number of learners in a program, number of learners completing a program, etc... (20). This emphasis has elicited some criticism over the past twenty years (Praxis 2008: 29-30, 60; Pye and Hattam, 2008: 10, 38; Mikulecky and Lloyd, 1996: 2; Sticht, 1991: 6 and 1999: 18).

There are reasons for the relative dearth of quantitative evaluation on outcomes. In Canada, employers have cited time and cost constraints, the comparative ease of relying on qualitative methods and indicators, a reluctance to intensively monitor employees, union opposition to evaluation, the sensitive nature of the process, and confidentiality concerns.

The complexity of the quantitative process is a serious barrier (20). This is underscored in a recent European report on evaluating vocational education and training that stated:

“The “true” effect of a program can only be measured if the method used to quantify change distinguishes the program effects from the effect of other factors, determines what the hypothetical outcomes would be for the same people if they had not participated in the program, accounts for short-, medium-, and long-term outcomes, and avoids selectivity and heterogeneity biases while ensuring validity (Descy and Tessaring, 2005: 13).

For many employers, especially SMEs, quantitative evaluation using controlled research methods is beyond their capabilities, in terms of the time, resources and expertise they are either able or willing to invest.

I. EVALUATING WORKPLACE LES PROGRAMS CURRENT PRACTICE AND ISSUES

Sections Four and Five provide examples in discussing the evaluation models currently in use in Manitoba and Nova Scotia.

WHAT DO EMPLOYERS LOOK FOR IN LES TRAINING PROGRAMS AND EVALUATIONS

Boosting the Bottom Line

The shift towards capturing employer outcomes is part of an effort in Canada and internationally to generate greater interest in and commitment to workplace LES training among employers. The assumption has been that they are ultimately most interested in the bottom line (17-18), a recurring theme in recent literature (Saunders 2009: 6-7; Parker 2007: 7; Goldenberg, 2006: 42; and CAEL 2006: 105-6). Yet employers recently surveyed in BC added some nuance to the “bottom line” argument. The study reported that these employers “would seriously consider starting more basic skills programs in their workplace if it helped with profitability (12 of 20), recruitment and retention (12 of 20), health and safety (13 of 20), morale and loyalty (13 of 20), and reducing errors and wastage” (11 of 20) (READ 2009a: 12). The importance placed on employees’ health and safety, morale and loyalty suggests that employers link attitudes and behaviours to productivity, a long-term impact valued by companies.

Enhancing Employee Attitudes and Behaviour — The Promotion of Soft Skills

Morale as an outcome attractive to employers, and perceived as conducive to the profitability of business, also surfaces in a recent report on the impact of workplace LES programs in small and medium-sized enterprises (SMEs) in Nova Scotia (Praxis 2008: 69-70). When asked to identity the “direct benefits to the company” of the workplace LES training programs they had offered, employers “focused on improvements in self-confidence, self-esteem, morale, job satisfaction and communications ‘soft skills’”. In their view, the improved attitude and behaviour of their employees, “non-technical and somewhat intangible changes”, translated into “significant changes in the workplace as a social environment...that provided the basis for downstream outcomes”, i.e. outcomes evident much later. These outcomes related to:

- communication and interaction in the workplace
- the ability to adapt to ongoing changes in workplace technology and processes
- the management of workflow and technical problems
- management understanding of employee capacities, talents and limitations
- the trainability and opportunities to promote from within the company

I. EVALUATING WORKPLACE LES PROGRAMS CURRENT PRACTICE AND ISSUES

Although these employers were not able to quantify the positive changes, they expressed confidence that [LES] training was generating significant gains in productivity and bottom line business outcomes “down the road”.

In a similar vein, a 2009 American report on a workplace literacy program funded by the State of Indiana underlined a “notable” tendency among the employers involved:

Despite their understanding of the strategic nature of training, perhaps the most notable observation about employer involvement was the lack of interest in or attempt to measure potential business outcomes ... It became apparent through interviews that businesses became engaged in the initiative mainly as a benefit for employees. They saw it as a way to improve employee morale. Most of the business representatives understood and articulated the fact that if workers would improve their basic skills and exhibit higher levels of morale, then they would likely be more productive... (Hollenbeck and Timmeney 2009: 18).

A 2006 survey of Canadian businesses found that employers valued how their programs enhanced workers’ lives, personally and at work, and thereby contributed to a culture of lifelong learning in the workplace. Most of those surveyed were also “reluctant to try and measure the economic benefits of workplace literacy training or tie the results too closely to the bottom line”, doubting that such programs were capable of producing an “immediate” impact, i.e. one that could be demonstrated and measured at the end of a LES training initiative (Plett 2007: 65-6).

A 2008 survey of European employers offering workplace literacy and essential skills training notes the connection some have drawn between “happier” employees and business outcomes. For example, in Ireland, while most interviewees believed that evaluation of organizational/financial impact, referred to as “hard measures”, was “important” or “essential”, they strongly supported evaluations that capture so-called “soft measures” or “intangibles”, such as positive changes in employees’ attitudes and behaviours. Employers in this study were interested in an evaluation model that would help them identify evidence of increased morale, self-esteem, confidence and job satisfaction, greater participation and initiative, and a willingness to continue work-related training (Pye and Hattam 2008: 49-50).

In the United Kingdom, employers who have offered their workers training programs, including basic skills education, through the national Train to Gain service indicated that, through such programs, they could demonstrate their commitment to developing their staff and therefore promote an “employee-friendly culture in their business,” which they apparently assumed to be important and beneficial to their employees and their organizations (LSC 2008a: 8-9).

I. EVALUATING WORKPLACE LES PROGRAMS CURRENT PRACTICE AND ISSUES

These findings suggest that employers may be less focused solely on “bottom line” outcomes for workplace training investment than most governments seem to assume. If that is the case, then there is a need to develop more varied evaluation methods to measure a broader range of outcomes. The next section of the paper looks at the relevant literature on this.

CAPTURING SOFT SKILLS

It has been argued that qualitative evaluation might be more effective in capturing improvements in soft skills or changed attitudes that many employers perceive as being generally “at least as important as harder financial impacts” and even more important in certain work settings (Pye and Hattam 2008: 49-50). As one recent study put it, not all outcomes can be easily quantified or converted to monetary value (Bailey 2008: 44). From this perspective qualitative evaluation is more suited to capturing changes in soft skills that a quantitative method might miss or oversimplify — unless some valid method existed to quantify these relatively elusive changes (20).

In this connection experts in New Zealand have called for the development of “a common measure of changes in confidence and literacy behaviours that providers could use alongside other outcome measures ... [that] would provide consistent and quantifiable results in an area that many teachers, employers and learners think are as important as LLN skills gain” (Benseman and Sutton 2007: 9-10).

Such a tool has been devised in the UK as an outcome of the National Institute for Adult Education/NIACE study *Catching Confidence* (2003-2006), which was launched to validate a body of anecdotal evidence from adult education experience that suggested an important connection between learning and confidence. The project “set out to examine confidence in relation to learning and ways of catching changes in confidence during episodes of learning. It also attempted to identify those things that help to build confidence in teaching and learning.” The concept and nature of confidence were studied and practitioner-researchers collaborated to create a tool capable of capturing changes in confidence (Eldred 2006: 2-3). The researchers distinguish between “measuring” which suggests precise instruments and results, and “capturing” which is more nuanced.

I. EVALUATING WORKPLACE LES PROGRAMS

CURRENT PRACTICE AND ISSUES

INTEGRATING QUALITATIVE AND QUANTITATIVE APPROACHES TO EVALUATION

According to best practice analyses, evaluation should integrate both qualitative and quantitative approaches, acknowledging the usefulness of both “hard” and “soft” evidence, multiple sources of information, and the value of complementing one with the other (20-21):

QUANTITATIVE MEASURES

- in-house records and statistics
- pre- and post- training assessments or tests (standardized or other)
- pre- and post- productivity analyses
- control charts, checklists, punch cards
- reports by supervisors and management
- benchmarking
- ROI analysis
- cost-efficiency analysis
- other measures, instruments and tools relating to learner outcomes

QUALITATIVE SOURCES OF INFORMATION

- interviews/focus groups/surveys involving learners, instructors, workplace supervisors, union representatives, employer
- informal assessments by instructors
- journals/portfolios/narratives produced by learners
- meeting minutes
- observation of classroom activities, workplace behaviour and performance

Source: Adapted from a summary table in CFL 2009: 17.

Time and resources permitting, triangulation (use of multiple methods to cross check results) and the use of a control group are also recommended. Throughout, the evaluation process should aim for balance, complementary methods and respect for the principles of feasibility, validity, reliability, confidentiality, anonymity and unobtrusiveness. An evaluation strategy of this type, that takes account of the goals of the program, the actual work setting and the resources available to carry out the evaluation, has the best chance of producing useful information for all stakeholders. This view has been widely promoted for over decade (Jurmo and Sperazi, 1994: 8-9, 11, 49-53, 56-63; Taylor, 1998: 18; Racine, 1999; Belfiore, 2002: 19-21; Descy and Tessaring 2005: 13, 15; Gray 2006: 74-6; Benseman and Sutton 2007: 9-10; and Pye and Hattam, 2008: 68-70).

SECTION TWO: THE OUTCOMES OF WORKPLACE LES TRAINING PROGRAMS

The success of workplace LES programs is generally based on outcomes or gains to either learners, employers or both. The literature reveals a consensus on gains to individuals or learners, but a divided opinion on employer outcomes.

LEARNER OUTCOMES

Learners in workplace LES training programs have consistently shown improvement in various areas that have impact on their work performance. Improvements have been reported in (5-6):

- communication skills (oral and written)
- numeracy
- understanding of machines and new technology
- understanding of work practices
- morale and self-confidence
- work satisfaction
- job task performance
- participation and initiative
- team-work
- job/career advancement potential
- interest in learning

Increased wages is another possible gain, although less well-documented. (WfDB 2007: 11; Parker 2007: 3-4; Merrifield 2007: 28-9; Gray 2006: 5, 54).

It is still not clear exactly how learners take their new skills back into their jobs and apply them, in other words, what might be called the “micro processes” behind the transfer of learning to the workplace. A small case study investigating this aspect of workplace LES outcomes was recently completed in New Zealand and a larger scale study is planned in 2010.

IMPROVEMENTS IN SOFT SKILLS

Focusing on this large cluster of improvements in learners, results of the Enhancing Skills for Life Project in the UK show that:

The most marked benefits for individuals and organisations are in personal and/or work satisfaction. Workplace learning has the potential to change individuals’ ‘learning trajectories’ and encourage them to rethink their ambitions and capabilities... and continue with formal learning in later years” (Wolf 2008: 1).

II. THE OUTCOMES OF WORKPLACE LES TRAINING PROGRAMS

A recent study of eleven workplace LES programs in Canada and the UK reported “significant gains” to individual workers, particularly in soft skills, or attitudes towards themselves, their job and employer, and learning. The authors concluded that, “As opposed to identifying productivity gains relating to both formal and informal training, it may be more advantageous to better understand employee job satisfaction and engagement with the workplace” (Taylor, Evans and Mohamed 2008: 6, 9-11).

The *Catching Confidence Project* discussed earlier concluded that participation in learning leads to an increase in confidence among learners, manifested in improved feelings of self-worth, self-assurance, happiness and well-being, and a greater ability to speak up and consider taking on new challenges in actual every-day situations. Of relevance to employers, the study found that increased confidence translated into “greater independence, enhanced ability to carry out tasks and relate to managers and colleagues in both formal and informal situations, as well as a heightened sense of achievement at work.” Moreover, this study demonstrated that a more confident worker is better able to learn and is more inclined to pursue further learning (Eldred 2006: 7).

A 2008 study on the impact of workplace LES programs in small- and medium-sized enterprises (SMEs) in Nova Scotia pointed to “significant possibilities that may deserve attention in future research and policy development” (Praxis 2008: 70-71). According to the study, it appears worth considering whether:

- the most serious barrier to skills development among adult members of the labour force is not, as conventionally assumed, lack of skills (including literacy/essential skills) but rather the personal, psychosocial limitations on the capacities and orientations of workers as learners
- the concept of “essential skills” might usefully be broadened (and deepened) to include self-knowledge and self-confidence as learners – i.e. finding one’s motivation, learning how, and becoming ready, to learn

The DeSeCo framework outlined earlier offers an appropriate reference. According to the Executive Summary:

Many scholars and experts agree that coping with today’s challenges calls for better development of individuals’ abilities to tackle complex mental tasks, going well beyond the basic reproduction of accumulated knowledge. Key competencies involve a mobilisation of cognitive and practical skills, creative abilities and other psychosocial resources such as attitudes, motivation and values (DeSeCo 2005 : 8).

II. THE OUTCOMES OF WORKPLACE LES TRAINING PROGRAMS

SOCIAL CAPITAL AND THE SOCIAL PRACTICE APPROACH TO LES

Studies have also linked participation in workplace LES training to gains in the home and the community (Gray 2006: 57; CCL 2007: 8-9; Campbell 2008: 16-17). The *Catching Confidence Project* confirmed this link, finding that increased confidence among learners can lead to more active or effective parenting, breaking away from harmful relationships or starting new ones and becoming more involved in community life and as citizens (Eldred 2006: 6-7).

In other words, workplace LES education can help learners develop not only skills needed for work, but *social capital*, which allows them to build social relationships and networks based on trust and shared values, contributing ultimately to community well-being and democracy, as well as social equity and justice. The impact of LES training beyond the workplace, enhancing the learner's "whole life", is an outcome emphasized by the "social practice approach" to workplace LES (READ Society 2009: 7; Page 2009: 6).

Ireland's adult literacy education philosophy exemplifies this approach. It views literacy as having "personal, social and economic dimensions... [that] increase the opportunity for individuals and communities to reflect on their situation, explore new possibilities and initiate change." Seen this way, literacy is not merely a set of technical skills, but a "social practice" that "can lead to social change as well as personal development" (Bailey 2007a: 15).

EMPLOYER OUTCOMES

Discussion in the literature about employer outcomes often centres on whether enhanced LES translate into impact on business, or higher productivity (6-7) (CCL 2009a: 27; Campbell 2008: 1, 16-17; CME 2008: 15-16; Townsend and Waterhouse 2008: 8; Rosen: 2007: 6-7; CCL 2007a; Parker 2007: 3-4; Lowe 2007: 66, 68-71; Goldenberg 2006: 8-9). Disagreement or doubt stems from the lack of research specifically on the impact of LES training, as opposed to skills enhancement or training more generally, on productivity. Those who favour quantitative methods criticize the little research that has been done for lack of rigour, i.e. using quantitative methodology, prompting one report to observe that claims of employer outcomes appear to be ultimately "based on faith as much as evidence" (Merrifield 2007: 10-11, 30-1).

Recent multi-site, longitudinal studies in Canada and the UK have preliminarily reported "mixed" or "very few" results on employer outcomes (Taylor, Evans and Mohamed 2008: 9-10). One of these studies, produced

II. THE OUTCOMES OF WORKPLACE LES TRAINING PROGRAMS

in the connection with the *Enhancing 'Skills for Life': Adult Basic Skills and Workplace Learning Project* (2003–2008, UK) qualified this finding by noting that such outcomes should probably not have been expected in the “immediate” term, i.e. by program end (Wolf 2008: 1). However, it is important to examine the research questions that guided these studies and to note the types of data they collected.

HUMAN CAPITAL AND THE “TECHNICAL-RATIONAL APPROACH” TO LES

The emphasis on the individual acquisition of skills and knowledge, or *human capital*, capable of generating business benefits, or employer outcomes is central to the so-called “technical-rational approach” to workplace LES. This approach views training as basically a “tool to boost productivity and bolster the economy” (READ Society 2009: 7; Page 2009: 6). Programs are offered to enable learners to perform better at work, leading to more profitable business. The focus is employers’ needs and outcomes, not those of individuals, i.e. the employees.

The latest report on the state of adult learning and workplace programs in Canada from the Canadian Council on Learning succinctly describes this approach: “The purpose of workplace learning and job-related training is usually to improve job performance, to meet work challenges and tasks in a creative way, and develop the ability to learn and develop continuously on the job” (CCL 2009a: 25).

TAKING ACCOUNT OF BOTH LEARNER AND EMPLOYER OUTCOMES

While emphasizing the human capital dimension of LES, the CCL report also acknowledged the importance of social capital. Under the heading *Recognizing the interconnections between work, family and community*, the report stated that, “Adults are influential role models—as learners and as active citizens—for their children, colleagues and their communities. Thus, the fostering of adult-learning opportunities contributes to social capital and social cohesion” (CCL 2009a: 11). From this perspective, workplace LES training benefits both skills (hence workplaces and employers) and people (not only as employees, but in their many roles beyond the workplace). The report suggests that both human and social capital, both employer and learner outcomes are of value to individuals, businesses, communities and the larger society and economy.

II. THE OUTCOMES OF WORKPLACE LES TRAINING PROGRAMS

The OECD's SOL project on the social outcomes of learning echoes this assessment. According to the project description:

Social outcomes of learning have far reaching implications that extend beyond narrow economic measures. First, economic activity is interdependent with social and political activity; and therefore, the relevance of learning is broader and more complex than its direct impact on the former. Learning experiences that have an impact on health, civic activity or social tolerance, for example, may have an economic dimension that is neglected when policy decisions are based solely on narrow return to education measures. Second, learning has an impact on our standards of living other than in terms of increased production and consumption of goods and services. Social and personal wellbeing are ends in themselves, and the effect of education on them is an important policy issue.¹⁰

A recent Canadian study aimed at "bridging employer and employee needs" pointed out that, despite a tendency in some of the literature to characterize the human capital and social capital foci in LES as opposed, the two approaches can be brought together. (READ 2009: 8).

Similarly, *Connecting the Dots*,¹¹ a study on accountability in adult literacy in Canada, highlighted the need for a more balanced approach that takes account of the skills and competencies associated with the theories of both human capital and social capital. Noting that literacy providers seem to privilege the development of social capital, while government appears primarily focused on human capital skills acquisition as a way to increasing employment, competitiveness and productivity, the study found evidence that the two approaches were not inevitably bound to compete with each other, but that, "they should be aligned if Canadians are to achieve the goal of economic and social wellbeing for all" (Page 2009: 6)

¹⁰ http://www.oecd.org/document/20/0,3343,en_2649_35845581_35674452_1_1_1_1,00.html

¹¹ The project report and other related materials can be accessed at:
<http://www.centreforliteracy.qc.ca/account.htm>

SECTION THREE: WHAT WORKS IN THE WORKPLACE

The third draft question underlying the *Measures of Success* project seeks to identify effective and efficient ways to provide workplace LES initiatives to maximize positive long-term impacts. After twenty years of research and practice, it is possible to identify the kinds of government policy and commitment from workplaces needed, and to highlight best practices that make LES initiatives successful.

THE ROLE OF GOVERNMENT, EMPLOYERS AND UNIONS¹²

Government

Practitioners and researchers agree that national governments should be at the centre of promoting and supporting workplace LES, beginning with the formulation of a national strategy, as in the United Kingdom and New Zealand (Praxis 2009: 28; Rosen 2008: 12; Plett 2007: 69; Gray 2006: 11-12). Government leadership is also called for in the key areas of financial support, advocacy and information, quality control and access (2-4).

In Canada, given its jurisdictional divisions, the adult learning policy landscape is complex, comprised of a variety of provincial and territorial policies and strategies. In addition, although the federal government has long been involved in certain aspects of adult learning, including literacy and essential skills, there is no national strategy. According to some, this has resulted in a less than efficient and consistent response to the skills challenge facing the country. Coordination of workplace LES initiatives and integration of long-term strategies are lacking (Folinsbee 2007: 11).

Employers

Whatever the national context, employers play a crucial role in workplace LES. Employers' awareness of skills gaps and training options, attitudes towards learning in the workplace, willingness to invest in training and commit to the process — are all critical. In Canada, low commitment to training is a serious concern (Bailey 2007: 6; Folinsbee 2007: 22; Plett 2007: 69-70). Complicating the picture, employers who do invest in training continue to focus on their high-skill employees and not the less educated who need LES (Myers and de Broucker 2006: v). Many employers worldwide feel that low-skilled members of the workforce should be the state's responsibility (Gray 2006: 13; Goldenberg 2006: iii, vi).

Identified barriers to greater employer investment include lack of awareness about the connection between low literacy in the workplace and job performance and productivity; time, resource and personnel constraints; limited information about funding, programs and providers; resistant management attitudes; the absence of champions within

¹² The current roles of these three groups specifically in Canada are outlined in CCL 2009a: 41-54 [government— federal, provincial, territorial], 51-61 [employers], and 61-62 [unions].

III. WHAT WORKS IN THE WORKPLACE

enterprises, sectors and professional business organizations; and the complexity of the training landscape (4).

Unions

Unions can make an important contribution to workplace LES training, as the experience in Canada, the United States and the United Kingdom shows (5). Many organized labour groups have substantial experience in workplace literacy and can act as advocates or champions to promote training programs within companies, among employers, management and workers, and, increasingly, sectors. The Canadian Council on Learning reports that "unionized businesses are more likely (76%) than non-unionized companies (53%) to support employee training. Studies have suggested that membership in a trade union significantly affects employees' levels of participation in both formal and informal learning" (CCL 2009a: 61).

Unions have helped initiate programs as well as provide workplace literacy training. Unions can also support both employers and workers with funds, helping to match government support, and negotiate collective agreements with provisions for training (Gray 2006: 7, 81; Bélanger and Robitaille 2008: 68; Plett 2007: 70; and Folinsbee 2007: 21-2).

Organized labour's support is shaped by a vision of workers entitled to education and its broad benefits that have impact on their employability and job performance, their attitudes to learning and their involvement in union activity and community life beyond the workplace. This vision is aligned with the social practice approach to LES discussed earlier. A briefing package recently prepared by CUPE (Canadian Union of Public Employees) expresses this:

...For CUPE, reading and writing are not ends in themselves. We understand literacy to be about reading the world, not just the words. Literacy is a tool for equity and social change, a means to further equality and access (Hayes 2008: 3).

It is worth noting that in Canada the percentage of paid workers who are union members has been dropping since 1981, from 37.6 to 29.4 percent at present. This decrease is apparent throughout the country, although less so in Manitoba, where the rate dropped by only 2.8 percentage points, compared to 8.2 for the country as a whole. The current rate in Manitoba stands at 35.1 percent, and in Nova Scotia, at 28.9 (Black 2009; BCBC 2007: 1).¹³ Of the companies that have been offering workplace LES training to their workers in recent years in Manitoba, about 38% are unionized, in Nova Scotia, perhaps 50%.¹⁴ The Measures of Success project will consider the role and impact of unions in LES outcomes in these provinces.

¹³ See also http://www.hrsdc.gc.ca/eng/lp/wid/union_membership.shtml

¹⁴ These numbers come from information provided in short interviews with Manitoba and Nova Scotia project partners.

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In connection with evaluation practice and, in particular, the quantification of learner outcomes, however, organized labour is reluctant to agree to evaluations that measure skills gains among workers participating in programs. The Canadian Labour Congress, for example, advises its unions to just say no to “a program where there is testing and reporting to the employer on individual results or progress” (CLC 2000: 15).

BEST PRACTICES IN WORKPLACE LES TRAINING PROGRAMS

The cluster of best practices that has emerged after more than two decades of initiatives and research relate to all aspects of workplace learning programs — from the design, implementation and assessment of training initiatives, to issues of delivery, instruction and learner/instructor support (7-16). These are outlined below:

BEST PRACTICES IN WORKPLACE LES TRAINING PROGRAMS — PROGRAM LEVEL

- *Employer commitment* — particularly important to sustainability (as well as to positively influencing employee commitment and collaboration with organized labour, where applicable)
- Workplace as a *learning organization* — training is viewed as a long-term investment, learning is continuous, and management practices are supportive
- *Collaborative approach* at all stages and in all aspects of the program — gives a voice to all stakeholders: the employer, supervisors, the union, learners, the provider, instructors, consultants, the funder
- Careful *planning and design* — possibly assisted by an outside consultant
- *Needs assessment*, for both the employees and the employer — helps to customize a program
- *Evaluation* (both ongoing or formative, and final or summative, formulated at the design and planning stage) — essential to improving the program as it unfolds and making decisions about its future once it is completed

III. WHAT WORKS IN THE WORKPLACE

BEST PRACTICES IN WORKPLACE LES TRAINING PROGRAMS — DELIVERY LEVEL

- *Flexible, customized* delivery models — “fitting” the program to the learners
- Recognition of *prior learning* — empowers learners and helps to better identify their learning needs
- Appropriate *learning assessments* — at the outset (to identify learners’ needs and assist placement) and throughout (to monitor progress and provide a basis for evaluation)
- *Contextualized* learning — instruction is based on the learners’ actual work context and tasks
- *Embedded* or *integrated* learning (according to a growing number of experts) — LES instruction is not delivered explicitly, but rather alongside another body of work-related knowledge and skills
- *Blended* learning — an appropriate combination of teaching methods, tools and contexts (including formal and informal learning, workshops, peer mentoring, job-floor/hands-on instruction, e-learning, etc...), addressing the growing diversity among workers
- *Supports* for learners, providers and instructors — information, financial/resource/technical support, organizational encouragement, mentoring, individual learning plans, celebration of achievements, follow-up services, respect for anonymity, confidentiality and cultural differences, opportunities for professional development¹⁵
- *Quality control* — possibly through national accreditation or certification of providers
- *Evaluation* — both ongoing or formative, and final or summative, conducted over a sufficiently long time frame to adequately assess both learner and employer outcomes, and that takes into consideration the organizational context in which the program was offered

The Measures of Success: Workplace Literacy and Essential Skills project will adapt a recent evidence-based model from New Zealand that integrates quantitative and qualitative measures and apply it to ten sites in both Manitoba and Nova Scotia to compare their current working models and outcomes. Critical to informing this process is a clear understanding of what is currently in place in these provinces.

Sections Four and Five provide an overview of workplace LES policy, programs, evaluation models and reported outcomes in the two provinces participating in the project

¹⁵ On supports, the 2009 Summer Institute review is supplemented here by findings reported in LSC 2008a: 8-9.

SECTION FOUR: OVERVIEW OF WORKPLACE LES IN MANITOBA

MANITOBA PROVINCIAL PROFILE

DEMOGRAPHICS		ECONOMY	
Total population (2009)	1,222,000	Highly diversified	manufacturing, transportation, agriculture, hydro-electricity, mining, finance and trade
First Nations (2006)	175,395	Manufacturing Services	12% of economy (largest industry) 75% of employment
Immigrant (2006)	151,230		
Visible minority (2001)	87,110	Unemployment rate (Jan. 2010)	5.4%
Francophone (2006)	43,955		
Senior/65 yrs and older (2007)	160,800		
Urban (2001)	72%		
Rural (2001)	28%		
EDUCATIONAL LEVEL OF WORKFORCE (2008)		AGE OF WORKFORCE (2006)	
0-8 years	2.9%	15-24 years	18% share
Some high school	14.4%	25-54 years	66% share
High school graduate	22.3%	55+ years	16% share (highest level ever in at least 32 years)
Some post-secondary	11.6%		
Post-secondary diploma/certificate	29.3%		
Bachelor's degree	14.3%		
Above bachelor's	5.2%		

Source: <http://www.statcan.gc.ca/start-debut-eng.html?gaw=08001> [Manitoba Summary Tables: <http://www40.statcan.gc.ca/l01/pro01/pro107-eng.htm>; <http://www40.statcan.gc.ca/l01/cst01/indi02h-eng.htm>]; Falk 2009; MC 2009.

MANITOBA'S WORKFORCE CHALLENGES

In terms of current and projected employment and labour supply, Manitoba faces the same challenges that confront the rest of Canada and other industrialized countries — a declining birth rate, a looming wave of retirements and a labour pool lacking the skills necessary for full integration into the workforce. The skills gaps are connected to several factors. School drop-out rates are unacceptably high, there are gaps between the skills learned in school and those needed in the workplace, and members of the workforce who graduated more than ten years ago often experience atrophy in skill levels or do not have the current skill levels valued. Among individuals within under-represented groups, LES are typically lower than those in mainstream groups. Increasingly, employers have come to recognize, overall, that the skills most lacking among workers are LES.

IV. OVERVIEW OF WORKPLACE LES IN MANITOBA

MANITOBA WORKFORCE ESSENTIAL SKILLS FRAMEWORK

Manitoba's provincial training and education policy includes a workplace literacy component, and the government provides funding and support for the delivery of workplace literacy training. (Plett 2007: 20). The 2004, 2007 and 2009 Manitoba Workforce Essential Skills Framework identifies ES as "a key priority" in the province's labour force development strategy. The Framework commits the Manitoba government to increase its "capacity to assess ES and deliver appropriate ES training" (MWESF 2007: 1-2). The specific objectives are to:

- help individuals and organizations understand the importance of ES to both learning and employment
- construct appropriate ES assessments that will provide the basis for devising the most effective training approaches
- increase opportunities for ES training

Led by Manitoba Entrepreneurship, Training and Trade in partnership with Advanced Education and Literacy,¹⁶ realizing these objectives depends on "coordination, partnerships, public awareness and trained instructors and counsellors who have the tools and resources they need in order to include ES in services and programs." Moreover, research and communication are essential to:

- help raise awareness about ES among workers and employers
- better assess skills levels
- identify gaps in service and capacity
- develop new tools, models and partnerships
- better evaluate outcomes

(MWESF 2007: 3-4)

To facilitate ES training and assessment, the 2007 Framework recommended establishing an ES training centre (MWESF 2007: 3). The Workplace Essential Skills Training Centre (WEST) was opened in September 2008 by Workplace Education Manitoba, a not-for-profit organization of business, labour and government dedicated to increasing ES in Manitoba (since 1991).

¹⁶ Within the Department of Manitoba Entrepreneurship, Training and Trade, Industry Workforce Development (formerly Industry Training Partnerships) is responsible for workplace ES training in the province. In 1991, government created the Workplace Education Manitoba Steering Committee (WEM), a not-for-profit board, "to create a mechanism through which government, the private sector and educational institutions could work together to improve the skills of both new and existing workers" in the context of "a rapidly changing economy, technological advances and the need for a skilled workforce in order to compete in the global market place". A 2005 report on the WEM's work since its inception identified its focus areas as "priority sectors of the economy with human resource issues affecting competitiveness," such as aerospace, health care products, tourism, manufacturing, customer contact, film, arts and cultural industries, environment and agri-food processing. MLI 2005: 1, 3.

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The 2009 Framework reflects the same vision, goals and principles but updates objectives to align with the provincial government's labour force development strategic priorities.

WEM/WEST funding is project-based and provided by the Province of Manitoba and HRSDC. Partners include Apprenticeship, Employment Manitoba, Industry Workforce Development, Labour and Immigration, business, labour, and community organizations.

WORKPLACE EDUCATION MANITOBA

Workplace Education Manitoba (WEM), an award-winning business-labour-government partnership, has championed workplace LES for almost two decades (Folinsbee 2006: 15; Folinsbee 2007: 17-18; Watkins 2007: 7-8).¹⁷ It works through partnerships with employers, customized solutions, and a systemic approach to produce results that are "cost-effective and sustainable".¹⁸

A 2006 HRSDC-funded case study concluded that the initiative "represents a remarkable model of truly pioneering work that has grown and moved to new levels over time and with new leadership. There is no other joint model for workplace literacy that can attest to the successes and remarkable impact that [the initiative] has been able to sustain over the last 16 years" (Folinsbee 2006: 52-3).

Manitoba has successfully completed many research and development projects since 1991 and delivered hundreds of workplace literacy classes to thousands in the workforce. In the process, activities have extended from urban centres to a variety of workplaces across sectors in both urban and rural parts of the province (Folinsbee 2006: 15; Folinsbee 2007: 17-18). Mirroring the steady and significant expansion of its work over the years is the ten-fold increase in financial support secured between 2001 and 2006 from both provincial and federal sources, and matched by "enormous" in-kind contributions from business and labour (Folinsbee 2006: 44).¹⁹

Manitoba's workplace LES focus has gradually shifted from workplace to *workforce* (both employed and unemployed workers) development and activities. These now extend beyond "innovative sector projects" (for instance in agriculture, the garment industry, aerospace, mining, manufacturing, forestry, construction) and worksite solutions to initiatives

¹⁷ Prior to 1994, the initiative was called Basic Skills in the Workplace.

¹⁸ http://www.wem.mb.ca/vision_values.aspx

¹⁹ For example, twenty-two LES training programs offered in 2008-2009 through WEM's Workplace Essential Skills Program Support Initiative received industry support of \$34,550.00 in cash and \$59,750.00 in kind (for a total of \$94,300.00 (or a little more than double WEM funding).

IV. OVERVIEW OF WORKPLACE LES IN MANITOBA

connected to “high-priority” occupations, communities and regional sectors, especially in rural and northern regions and more recently, among the province’s large Aboriginal population (Folinsbee 2006: 40-2).

WORKPLACE LES TRAINING PROGRAMS AND PROJECTS IN MANITOBA, 2002-2009

Unpublished materials (evaluation reports, program summaries) made available to this project document a sample of LES training programs and projects implemented and evaluated in Manitoba between 2002-2009 in a variety of companies and communities.²⁰ As an example, a final report on the Workplace Essential Skills Program Support Initiative (45k) in 2008-2009 lists twenty-two programs across sectors (manufacturing, aerospace, service industry, health care, child care, secondary/technical/ vocational education, offices, water/waste water) and occupations (operators, shop stewards, shift leaders, electricians, carpenters and other trades, security guards, managers, professionals, board members). The initiatives addressed different aspects driving the need for LES training, as outlined below:

THE DRIVERS BEHIND WORKPLACE LES TRAINING INITIATIVES IN MANITOBA, 2002-2009

- skilled labour shortages
- quality issues for employers
- new industry standards (ISO certification, health and safety)
- greater emphasis on team-work and leadership skills
- recruitment efforts targeting immigrants
- recruitment screening using TOWES
- greater awareness of the skills needs of Aboriginal communities to transition to the workplace
- greater interest in recognizing and validating prior learning
- government drive to raise awareness and better market ES solutions to employers, and enhance human resource practice in the workplace by integrating ES
- an increase in apprenticeship numbers and the need to increase success in technical training and certification by raising ES levels
- need in unions to support member training needs in transferable skills

²⁰ These are listed under “Unpublished Materials” in the Bibliography attached to this report.

IV. OVERVIEW OF WORKPLACE LES IN MANITOBA

Generally speaking, these various programs share basic components at the core of best practice in workplace LES training:

BEST PRACTICE COMPONENTS OF WORKPLACE LES TRAINING INITIATIVES IN MANITOBA, 2002-2009

- Initiative designed and implemented by a *joint steering committee* including, depending on the workplace, WEM, employer/management, labour, government partners, sector councils, human resources; an external consultant in some cases
- *Customized* program design
- *Needs assessment* to verify the need for training and determine the exact training objectives
- Development and use of a *contextualized and blended learning strategy*, employing a variety of teaching approaches and materials (depending on the needs of the specific group of workers involved) — including: classes, workshops, video-conferencing, modules, job-specific tasks or 'scenarios', experiential or hands-on training, interactive, dynamic learning, one-on-one tutoring, one-on-one and small-group coaching on the shop floor, drop-in counselling
- *Evaluation* (discussed below)

OUTCOMES OF WORKPLACE LES TRAINING PROGRAMS IN MANITOBA, 2002-2009²¹

Several evaluation reports and summary documents on workplace LES training programs offered in Manitoba between 2002 and 2009, and a 2010 case study by The Conference Board of Canada (Campbell 2010), indicate that the initiatives successfully met their goals, and achieved positive outcomes. These outcomes echo those documented in similar training initiatives in other parts of Canada and abroad, as described in *Section Three*. Outcomes related overwhelmingly to learners (Kirkpatrick Level 1/*Reaction*, Level 2/*Learning* and Level 3/*Knowledge Transfer*), with employer outcomes reported in a minority of the program samples in the available documents:

²¹ The discussion that follows on outcomes, success factors and evaluation has benefitted from clarifications and information provided in an interview with the project's Manitoba partner, conducted on 24 February 2010.

IV. OVERVIEW OF WORKPLACE LES IN MANITOBA

REPORTED OUTCOMES OF WORKPLACE LES TRAINING INITIATIVES IN MANITOBA, 2002-2009

Learner gains — improvements in:

- Learning: higher reading level, better writing, stronger results on tests and exams, apprenticeship assessments
- greater understanding (fewer errors) of workplace written materials
- communication (oral and written, e-mail)
- greater job task planning and organizing
- better team work
- more participation in the workplace
- increased morale, self-confidence and motivation
- greater interest in further learning or training

Employer gains — improvements in:

- retention
- product quality
- customer service
- safety
- ROI savings (\$250,000 in six months) — reported in one case, although no information was provided on how exactly this outcome was measured

In addition to learning and specific job-related knowledge — the “hard skills” — learner gains in soft skills, such as attitudes and related behaviours, are reported throughout. The latter are apparently the first gains to be noted by supervisors (through observation) and learners themselves (self-reported).²²

SUCCESS FACTORS

The evaluations suggest the best practice components of the programs themselves account for their success. The involvement of WEM/WEST and their contribution to the entire process underlying the programs and their implementation were also identified as major factors. One respondent to an evaluation said the WEM/WEST-supported initiative “is a gem... [that] has been very beneficial to our facility. The partnership with industry and employers is fantastic.” Another respondent said the WEM/WEST team “deserve kudos for their willingness to work with industry. It’s not just ‘we’re from government and we’re here to help you,’ they actually do!” These assessments are repeated in a new case study of a workplace LES program in the aerospace industry in Manitoba published by The Conference Board of Canada (Campbell 2010).

²² In Manitoba, employers apparently understand soft skills to mean ‘reading and writing’. When referring to employee attitudes and related behaviours, they speak about ‘motivation’.

IV. OVERVIEW OF WORKPLACE LES IN MANITOBA

The workplace landscape in Manitoba is dominated by small- and medium-sized businesses (SMEs), accounting for about 90 percent of enterprises. Consequently, workplace LES training programs, including the evaluation approach, must be “creatively” designed and implemented to fit not only the specific needs of a small business, but also to work as effectively as possible given the employer’s very real constraints. Time and limited staff (often, the employer alone constitutes the staff) are big issues. Cash flow is another. In this context, “accommodation” is called for if a program is to succeed. From this perspective, it is not surprising that flexibility and program customization figure prominently among the success factors noted.

EVALUATION OF WORKPLACE LES TRAINING PROGRAMS IN MANITOBA, 2002-2009

Manitoba evaluates its workplaces LES training programs for a number of reasons:

- Requirement of the funding agreement: The type of evaluation changes to align with the evaluation needs of the funding government. Sometimes programs are evaluated in a way that also informs other provinces about significant success factors (stated as recommendations in the evaluation reports).
- Formative evaluation is conducted to ensure that current training is meeting stakeholder needs.
- Summative evaluation is conducted to determine if employer needs were met and if learners achieved a skill gain.

THE MODEL AND EVIDENCE BASE

Workplace LES training programs in Manitoba are evaluated according to the following model:

EVALUATION METHODOLOGY IN WORKPLACE LES TRAINING PROGRAMS IN MANITOBA

- Internally-conducted (except in the case of federally-funded programs)
- Both formative and summative (largely), some follow-up
- Mix of both qualitative and quantitative sources of information (see below)
- Evaluation at Levels 1-3 of Kirkpatrick model (learner outcomes) — using both qualitative and quantitative sources of information (see below)
- Evaluation at Level 4 of Kirkpatrick model (employer outcomes, or impact) — through interviews with learners/supervisors or management (rarely through quantitative measures, i.e. the collection of numbers)

IV. OVERVIEW OF WORKPLACE LES IN MANITOBA

In line with best practice, the information comes from a mix of sources and uses several information-gathering techniques. As outlined below, the quantitative data collected varies depending on funding demands and tracks program outputs relating largely to learners. Quantitative numbers relate to standard program outputs, as explained above.

MEASURING SUCCESS IN WORKPLACE LES TRAINING PROGRAMS IN MANITOBA, 2002-2009

QUALITATIVE SOURCES OF INFORMATION
<ul style="list-style-type: none">• interviews with: learners, steering committee members, supervisors, management (program-end, follow-up)• questionnaires (program-end, follow-up)• focus groups• learner self-assessments• instructor monitoring and informal assessments• work floor observations during training, post-program work floor observations• on-site visits• managerial comments, anecdotal stories
QUANTITATIVE MEASURES
<ul style="list-style-type: none">• learner profile (number of: existing workers, job-seekers, apprentices, trade qualifiers, under-represented groups, hard-to-engage groups)• number in audience during marketing/awareness raising• number of learners signed up for program• number of learners completing program• formal assessments, tests• number of practitioners trained

The specifics of the model are worked out by the program's joint steering committee, taking into account the needs and concerns of various stakeholders. The decision, for example, to administer tests or formal assessments to learners, or to use informal assessments instead, considers the perspective of employees and, where applicable, their union representatives. Ensuring confidentiality is an important concern to which the steering committee is sensitive. Supervisors can also influence aspects of the evaluation. Their major concerns are production schedules and meeting deadlines. The evaluation process must take account of these and work around them, with the support of supervisors, to ensure that production remains on time.

IV. OVERVIEW OF WORKPLACE LES IN MANITOBA

BARRIERS TO LONG-TERM AND QUANTITATIVE EVALUATION

According to the Manitoba partner interviewed for this paper, there have not been a significant number of agreements to date that have allowed the evaluation of long-term outcomes to employers and learners. Barriers to this type of evaluation include:

- lack of funding — Government funders are interested in standard program outputs, not in tracking long-term outcomes. ROI, for example, is not typically required by government programs. If employers gather this type of information and are not concerned about confidentiality, then it is recorded.
- access to worksite stakeholders
- the basic implication of “long-term”, meaning that it goes past fiscal year end and the project that funded the original training is no longer in existence and/or funded

At the same time, the calls in the literature for more quantitative evaluation to provide evidence of employer outcomes do not reflect Manitoba’s experience over the years. They have found that employers do not always become involved in such programs to improve performance or production, but because something has changed in the workplace (e.g. a new technology or work process is introduced, for example) that requires workers to upgrade existing skills or acquire new ones. These employers are looking for improvements in specific skills tied to these changes, not necessarily to track how their bottom line is affected.

More broadly, employers in Manitoba, as elsewhere in Canada, as noted in the literature, are concerned about confidentiality and liability issues. Many, for example, in the aerospace, transport, health and agri-food industries, operate in tightly regulated and competitive environments. They are therefore wary of programs formally and quantitatively tracking their employees’ performance on the one hand, and their productivity on the other. Thus, while employers who participate in Manitoba workplace LES programs have shown themselves to be open to the evaluation process and collaborate within the joint steering committee to support it (for example, paid release time for staff to carry out the evaluation), they are hesitant to endorse a more formal quantitative approach.

In this connection, the project’s Manitoba partner suggested that it would be useful to develop an evaluation model that included a “confidentiality matrix” that would allow employers to comfortably and securely provide data on business outcomes. If not, or in combination with such a matrix, another approach worth exploring is one that incorporates insights and methods developed and validated by anthropologists and ethnographers to gather anecdotal information.

SECTION FIVE: OVERVIEW OF WORKPLACE LES IN NOVA SCOTIA

NOVA SCOTIA PROVINCIAL PROFILE

DEMOGRAPHICS		ECONOMY	
Total population (2009)	938,200	Previously largely industrial	Has shifted to primarily service-based
First Nations (2006)	24,170	Services-producing sector	81% of employment
Immigrant (2006)	45,195		
Visible minority (2001)	34,525	Unemployment rate (Jan. 2010)	9.8%
Francophone (2006)	32,540		
Senior/65 yrs and older (2007)	138,400		
Urban (2001)	56%		
Rural (2001)	44%		
EDUCATIONAL LEVEL OF WORKFORCE, 25-54 years (2008)		AGE OF WORKFORCE (2008)	
Less than high school	10%	15-24 years	17% (approx.)
High school graduate	16%	25-54 years	67% (approx.)
Some post-secondary	8.3%	55 years and over	17% (approx.)
Post-secondary diploma/certificate	40.1%		
University degree	24.4%		

Source: <http://www.statcan.gc.ca/start-debut-eng.html?gaw=08001> [Nova Scotia Summary Tables: <http://www40.statcan.gc.ca/l01/pro01/pro103-eng.htm>]; NSEGS 2000; LWD 2009: 1.

NOVA SCOTIA'S WORKFORCE CHALLENGES

Nova Scotia too faces "a number of labour force and education challenges [that] hinder the development of a well-balanced, skilled, and knowledgeable labour force."²³ Among these is an aging population, a particular concern in Nova Scotia, home to the oldest population in Canada. The proportion of the senior population, aged 65 and older, has risen significantly in the past several decades, coupled with a decline in the youth population. The demographic picture is made more complex by out-migration in rural areas (Saunders 2008: 3; LWD 2009: 1).

Other developments that have impact on businesses and the labour supply include: increasing skills requirements across sectors and occupations, the need for more certification, rapid technological changes, and the pressures of globalization and growing competition. In the area of literacy specifically, the province is confronted with a formidable obstacle to social and economic prosperity. In 2003, the Nova Scotia Department of Education reported

²³ <http://skillsnovascotia.ednet.ns.ca/framework.shtml>

V. OVERVIEW OF WORKPLACE LES IN NOVA SCOTIA

that approximately 52% of residents “struggle significantly with reading, writing, and understanding documents to a level where they can be put to use.” The figure has been described as “staggering”, with “great implications for the future of the economy” (NSDE 2005).

NOVA SCOTIA WORKFORCE ESSENTIAL SKILLS FRAMEWORK

Like Manitoba, Nova Scotia has a provincial training and education policy with a workplace literacy component, and government funding and support are provided for the delivery of workplace literacy training (Plett 2007: 20). The province’s latest Action Plan on skills makes the skills needs of Nova Scotia’s labour market its top priority (Goal 1). The Plan stresses the “critical” importance of addressing these needs quickly and energetically to produce a labour force and skills development practices that are “more adaptive, responsive, and flexible.” Only such a response can “ensure a thriving economy for Nova Scotia, now and into the future” (SNS 2006-7: 1-3).

As laid out in the Action Plan (SNS 2006-7: 2), government is committed to strengthening the province’s system of lifelong learning opportunities (Goal 3), more specifically to:

- increase the opportunities for Nova Scotians to access adult basic education
- make education and training more relevant to the emerging skill needs of the learners and employers
- increase the post-secondary education and training system’s capacity to respond to emerging labour market needs
- promote lifelong learning through the development of a learning culture

In supporting lifelong learning, the Plan highlights its promotion of workplace education and training as “a primary strategy for addressing the skills requirements of our workforce” (SNS 2006-7: 37-8). Within government, ES programming in the workplace in alignment with this strategy is the responsibility of the Department of Labour and Workforce Development.²⁴

NOVA SCOTIA WORKPLACE EDUCATION INITIATIVE

Nova Scotia’s LES strategy and programs rest on the province’s award-winning Workplace Education Initiative (WEI), a collaboration between

²⁴ The Department’s work in support of workplace LES training is guided by Nova Scotia Partners for Workplace Education (NSPWE), an advisory committee co-chaired by business and labour (with the participation of active workplace education instructors). As well as advice, NSPWE’s work also relates to curriculum development and marketing strategy. The Department also collaborates closely with the Association of Workplace Educators of Nova Scotia (AWENS), a network of professionals who support workplace education, offering professional development, certification workshops and networking opportunities. (Plett 2007: 23; NSDE 2005; LWD 2008: 4-5).

V. OVERVIEW OF WORKPLACE LES IN NOVA SCOTIA

government, business and labour “to establish customized essential skills programs, supporting the re-skilling and up-skilling of the current workforce, as well as the enhancement of labour market attachment.” The customized approach allows the partnership to respond to the different needs of a variety of employers and workers, including businesses of various sizes, specific industry sectors, apprentices, displaced workers and the unemployed.²⁵ Established in 1989, WEI has four broad objectives (Plett 2007: 22-3):

- to create accessible learning opportunities for workers in Nova Scotia’s workplaces
- to enhance the essential skills of participants in Nova Scotia’s workplaces
- to influence the economic and social development of Nova Scotia by providing relevant education that impacts individuals where they work and live
- to encourage the establishment of a lifelong learning culture in Nova Scotia and its workplaces

In 2006-2007, 142 LES training programs were developed and implemented through WEI in seventy worksites in Nova Scotia, affecting 1,222 employees. In 2007-2008, the number of programs rose to 222 in seventy-eight worksites, affecting more than 2,000 employees. Following several evaluations, the latest in 2005, provincial funding for WEI has increased and stabilized on a long-term basis (LWD 2008: 3; Praxis 2008: 7).²⁶

WORKPLACE LES TRAINING PROGRAMS AND PROJECTS IN NOVA SCOTIA, 1995-2007

The Conference Board of Canada’s “2004 Business and Education Ideabook” highlights three Nova Scotia programs that earned awards for Excellence in Workplace Literacy (CBC 2004: 24, 26, 33). The Board also profiled another program in its 2005 Case Study series (Gagnon 2005).²⁷ These profiles provide information on the drivers behind LES training initiatives in the province, as well as on program characteristics and outcomes. A recent HRSDC report on the impacts of workplace LES training in Canadian SMEs, focused on Nova Scotia and the “exemplary” WEI, supplements these profiles (Praxis 2008).

²⁵ <http://www.cea-ace.ca/foo.cfm?subsection=lit&page=pol&subpage=lan&subsubpage=pro&topic=nov>

²⁶ See also, <http://www.awens.ca/about.html> (see link on this page to a NSPWE power point presentation) The 2006-2007 programs represented an investment of \$1,358,672.00 — \$422, 558 from the province and \$936,115 from industry. As in Manitoba (note 19), industry in Nova Scotia contributed about double the amount provided by government in support of LES programs. In 2007-2008, total investment in workplace LES training programs rose to \$1,830,643.00, with the province contributing \$892,361.00.

²⁷ Two of the programs highlighted in the “Ideabook” are also profiled in this series in Gonzalez (2005) and Kitagawa and Campbell (2005), and they are featured as well in a recent report prepared for the Canadian Council on Learning that includes international case studies of “effective workplace learning practices” in small- and medium-sized enterprises (CBC 2008).

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A report from the Canadian Council on Social Development's project "Literacy Programs in the Workplace: How to Increase Employer Support" (2004-06) adds information. The report includes a case study of seven Nova Scotia companies that had offered or were then offering their workers some form of workplace LES training. The companies ranged in size (one small, four medium, two large) and sector (one forestry, four service/long term care, one manufacturing, one public) (Plett 2007: 22-34).

Additional sources on LES training programs include formal published evaluation reports of WEI prepared for the Department of Education, an unpublished program evaluation plan issuing from these reports, and an unpublished draft overview of workplace education produced by the Department Labour and Workforce Development (Shannon 1999; CCS 2005; EP 2006; LWD 2008).

According to all these sources, as in Manitoba, the drivers behind LES training in Nova Scotia are varied. They include:

DRIVERS BEHIND LES TRAINING INITIATIVES IN NOVA SCOTIA, 1995-2007

- the use of new technology (e.g. computers and/or computerized equipment)
- the pressure of global competition
- the introduction of new industry and/or government-legislated standards (e.g. safety, certification requirements)
- the introduction of new management techniques
- skills gaps among individuals, teams
- skills gaps among immigrant workers
- market changes (e.g. changes in international agreements)
- the adoption of more environmentally sound production methods
- changing job descriptions in the aftermath of downsizing and restructuring
- personal development issues

V. OVERVIEW OF WORKPLACE LES IN NOVA SCOTIA

The LES training programs offered in Nova Scotia are also similar to those in Manitoba in terms of their structure, i.e. they incorporate basic components recognized as best practice:

BEST PRACTICE COMPONENTS OF LES TRAINING IN NOVA SCOTIA, 1995-2007

- *Collaboration* — a project team (WEI representatives or skill coordinators, employer/management and labour/union) that works closely with instructors, a few workers and supervisors on all aspects and phases of the program
- *Customized* program design
- *Needs assessment* — organizational and individual
- *Contextualized and blended learning* — work-relevant curriculum, materials and learning approaches; multiple learning approaches depending on needs (small classes, tutoring, mentoring)
- *Monitoring* of learner progress
- *Learner supports* — access (programs held at work site, partially or fully on work time, flexible scheduling), voluntary participation, confidentiality of learner progress and results, celebration of learner achievements
- *Quality control* — programs delivered by qualified instructors with extensive experience as adult educators
- *Evaluation* — discussed below

OUTCOMES OF WORKPLACE LES TRAINING PROGRAMS IN NOVA SCOTIA, 1995-2007²⁸

WEI has been evaluated twice since its creation — in 1999 (Kelly 1999: 37-77) and, more recently, in 2005 (CCS 2005). The reported outcomes of workplace LES training programs in Nova Scotia, developed through WEI, have been numerous and positive. The programs are credited with gains to learners (Kirkpatrick Level 1/*Reaction*, Level 2/*Learning* and Level 3/*Knowledge Transfer*), to employers (Kirkpatrick Level 4), as well as more broadly to society:

²⁸ The discussion that follows on outcomes, success factors and evaluation has benefitted from clarifications and information provided by two interviews with the project's Nova Scotia partner, conducted on 13 January and 24 February 2010.

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REPORTED OUTCOMES OF LES TRAINING INITIATIVES IN NOVA SCOTIA, 1995-2007

Learner gains — improvements in: <ul style="list-style-type: none">• learning (better test results)• communicating (oral, written)• computer use• morale, self-confidence• job performance• team work• participation (including union activities), initiative• relations with management and union• interest in further learning	Employer gains — improvements in: <ul style="list-style-type: none">• employee retention• employee absenteeism• employee promotions• productivity• customer service• health and safety record (fewer accidents)
Gains to society: <ul style="list-style-type: none">• learners make positive contributions to family and community life• promotion of a culture of lifelong learning in Nova Scotia	

Underscoring the importance of improved soft skills to employers, HRSDC's study of the impacts of workplace LES training programs in Canada reported that for the twelve Nova Scotia employers surveyed in the study:

The most frequently mentioned benefits cluster around improvements in self-esteem and confidence, teamwork and morale among employees. A picture emerges where positive changes in workplace culture and relationships were perceived as much more significant than improvements in literacy skills or job skills per se (Praxis 2008: 48).

As discussed in *Section One*, these employers linked the improvements they observed in the soft skills of their employees to gains in productivity and "bottom line business outcomes" that they expected to see eventually. The study also found connections were made between enhanced soft skills and "positive changes outside the workplace in family and community relationships". Employers referred often to "greater employee engagement" at work (volunteering on workplace committees or in union activities), and beyond (volunteering on community projects). Interestingly, some employers mentioned how greater confidence allowed employees to "leave the company to "pursue their dreams" in terms of alternative career paths and that this, overall, is a good thing" (Praxis 2008: 52).

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The 2005 evaluation of WEI reported similar findings in terms of positive outcomes beyond the workplace. For example, one employer interviewed noted that, “People have mentioned helping their children with their homework and reading to them more...A change like this is good for everyone and Nova Scotia...” (CCS 2005).

SUCCESS FACTORS

The workplace LES training programs in Nova Scotia have produced positive outcomes and elicited strong stakeholder endorsements of the initiatives as “a real good deal” and “the way of the future” (Plett 2007: 31; CCS 2005). As in Manitoba, the best practice components of the province’s programs are directly tied to their success. Here, too, the role of WEI, which provides employers “a process and structure” for programs (Plett 2007: 30), appears to be critical (Praxis 2008: iii).

Another similarity is the proportion of small- and medium-sized enterprises which account for over 90% of employers in Nova Scotia. As noted earlier, for program success in such companies, where the constraints of time and resources are particularly pronounced, they need to be flexible and accommodating. Program customization is therefore especially important, which WEI clearly understands and acts on to effect.

EVALUATION OF WORKPLACE LES TRAINING PROGRAMS IN NOVA SCOTIA, 1995-2007

Evaluation practice in Nova Scotia’s workplace LES training programs was modified in 2006 in accordance with a new strategic evaluation plan based on recommendations in the 2005 evaluation of WEI, discussed below. According to this plan, programs are evaluated in order to:

- provide data on the reach of the program (demographics) and participation (program outputs) in order to maintain or increase funding
- inform stakeholders if needs and goals were met
- document skills gains
- document impact on learners beyond the workplace (in family life, the community)
- document lessons learned for future use by instructors and project teams
- gather information that is potentially useful when explaining the program to other prospective participants (for example, learners’ motivation for participating in the program)
- collect impact data to “help with promotion of the program and involving new organizations in workplace education” and that “would lend itself well to making a case for the role of workplace education”

V. OVERVIEW OF WORKPLACE LES IN NOVA SCOTIA

THE MODEL AND EVIDENCE BASE

Workplace LES training programs in Nova Scotia are evaluated according to the following model:

EVALUATION METHODOLOGY IN WORKPLACE LES TRAINING PROGRAMS IN NOVA SCOTIA

- Internally-conducted
- Both formative and summative, with 3-month follow-up
- Mix of both qualitative and quantitative sources of information (see below)
- Evaluation at Levels 1-3 of Kirkpatrick model (learner outcomes) — using both qualitative and quantitative sources of information (see below)
- Evaluation at Level 4 of Kirkpatrick model (employer outcomes, or impact) — more systematically since 2006 (including impact on society at large), through follow-up questionnaire given to Project Team, not through collection of numbers

Skill gains and learning transfer are documented by asking learners about perceived improvements (on a scale of 1-5 and n/a before and after the program) in:

- reading, writing, math and verbal communication skills
- using workplace forms/documents and locating information
- using computers or technology
- problem solving, decision making, job-planning and organizing, and critical thinking skills
- ability to work with others, ability to work on own
- level of self-confidence, satisfaction going to work
- quality of work produced, time taken to complete a job task, errors made at work
- overall job performance
- productivity
- participation in the organization/company and the union
- motivation to learn

As in Manitoba, the indicators of success in Nova Scotia are based on a mix of sources and information-gathering techniques, and the quantitative data track outputs related to learners:

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MEASURING SUCCESS IN LES TRAINING PROGRAMS IN NOVA SCOTIA, 1995-2007

QUALITATIVE SOURCES OF INFORMATION

- questionnaires (filled out by learners/program-end, instructors/program-end and program team/program-end and 6-month follow-up)
- learner self-assessments
- informal instructor assessments
- observations, perceptions, comments, remarks by project team

QUANTITATIVE MEASURES

- learner profiles
- number of learners signed up for program
- number of learners completing program
- average rate of attendance
- results on formal assessments, tests (in a few programs leading to GED)
- number of learners who later went on to earn a GED, complete courses in university programs, or earn industry licences (tracked by some companies)

TOWARDS DEMONSTRATING IMPACT — CAPTURING EMPLOYER OUTCOMES AND BENEFITS TO SOCIETY

Although the reported outcomes enumerated earlier include impact results (Kirkpatrick Level 4), i.e. gains beyond the learner to the employer, as well as to society, the evaluation methodology employed in Nova Scotia until quite recently did not systematically measure at this level. In this connection, the 2005 evaluation of WEI criticized the evaluation approach then in place, which it described as “not aligned with government’s increasing demand for accountability in public funding”. The report pointed to “weak documentation”, which made it “very difficult to encourage organizations to become involved”.

In order to “demonstrate” the “considerable return for investment of workplace education”, the report recommended that the evaluation forms in use be discarded and a new plan for evaluation be considered with more “formal”, “systematic” and multi-stakeholder reporting (CCS 2005). This recommendation prompted a two-day workshop with instructors, skill development coordinators and management, leading to development of a *new strategic evaluation plan* (EP 2006).

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This plan, issued in January 2006, is the basis for the evaluation forms currently used in Nova Scotia's workplace LES training programs. These forms include:

- *Participant Profile* (mandatory — to gather demographic data needed to help secure funding)
- *Participants' Evaluation* (voluntary, self-assessed, end of program)
- *Instructor Evaluation* (mandatory, end of program)
- *Project Team Evaluation* (mandatory — to gather the perspectives of management, union, participant, instructor, and coordinator on the success of the program)
- *Project Team Follow-Up* (mandatory, six months following completion of program — to gather data on any changes or impacts as a result of a program and help in making a case for the role of workplace education)

Questions addressed to learners and the Program Team, in particular the new three-month follow-up, attempt to capture whether a given program has produced "any differences" in impacts on both employer and society, as outlined:

IMPACT EVALUATION IN WORKPLACE LES TRAINING PROGRAMS IN NOVA SCOTIA (SINCE 2006)

- productivity
- promotion possibilities for learners
- retention rates
- budget
- profit margins
- family and community life

The new evaluation plan incorporates outcomes beyond Kirkpatrick's Level Three and the learner. The 2008 draft overview of workplace education from the Nova Scotia government indicates that programs "attempt to collect impact data when possible" (LWD 2008: 14).

BARRIERS TO QUANTITATIVE EVALUATION

These developments notwithstanding, the collection of impact evaluation data, or quantitative evidence of outcomes, faces an important challenge in SMEs. A recent study in Nova Scotia found that these employers are "resistant to pressures to invest the time and effort to generate such evidence" (Praxis 2008: 60). Common characteristics were "lack of hard data readily at hand", and an inability "...to quantify benefits and costs,

V. OVERVIEW OF WORKPLACE LES IN NOVA SCOTIA

impacts on productivity, employee promotions or training accomplishments. Time constraints were cited as a factor impeding the collection of numbers, as well as the fact that these employers simply did not keep such data” (Praxis 2008: 41). With the workplace landscape made up largely of SMEs, as in Manitoba, the implications for a more quantitatively-based evaluation approach in the province’s workplace LES programs need to be carefully considered.

Evaluation practice in Manitoba and Nova Scotia share many of the same basic characteristics:

EVALUATION METHODOLOGY IN WORKPLACE LES TRAINING PROGRAMS IN MANITOBA AND NOVA SCOTIA

CHARACTERISTIC	MANITOBA	NOVA SCOTIA
External evaluation	in federally-funded programs	no
Both formative and summative	in most cases	yes, also 6-month follow-up
Qualitative versus quantitative sources of information	mix (with quantitative measures connected largely to outputs relating to learners)	mix (with quantitative measures connected largely to outputs relating to learners)
Evaluation of impact, or employer outcomes (Kirkpatrick Level 4)	to a certain extent — through interviews with learners, supervisors, management (rarely through the collection of numbers)	to a certain extent — more systematically since 2006 (including impact on society at large), through follow-up questionnaire given to Project Team, not through collection of numbers

Evaluations in both provinces — as has been the dominant approach for years in Canada and abroad — focus on learner outcomes and rely almost exclusively on qualitative sources of information and techniques to assess employer outcomes (productivity/impact). Incorporating a more quantitative, employer-focused approach would need to take account, as the project partners noted, of the constraints facing SMEs (which dominate the workplace landscape in both provinces). Another issue is confidentiality and liability concerns among employers. These need to be addressed when considering whether, how and to what extent to shift to measuring employer outcomes. As one of the partners remarked, facing these issues head on requires looking honestly at stakeholder concerns, including those of employers, when it comes to evaluation and “thinking outside the box”.

The growing concern in Canada with the skills of its current and future workforce is part of a trend among industrialized states that economic success and prosperity are directly linked to the skills levels of their populations. In this context, initiatives, discussions, and studies connected to strengthening LES in the workforce have proliferated in the last twenty years, in Canada and elsewhere. This international experience has allowed researchers to identify what works best in workplace LES training.

There is considerable evidence of positive outcomes of such training, but there is also debate among experts about the nature of the evidence and the methods by which it was gathered. These debates are often aligned to the philosophy and politics of human and social capital. One discussion in the literature relevant to evaluation revolves around definitions of workplace LES training as either a tool to generate human capital in the interests of business and the economy more broadly, or as a means to develop social capital, to the benefit of learners, their families, communities and society. Recent studies have proposed that workplace LES programs and evaluation models take a more global perspective and consider both approaches. They suggest that the development of human and social capital need not be competitive or exclusive, but mutually supportive and beneficial. Best practice, as highlighted in this paper, calls for a mixed qualitative-quantitative approach to evaluation to measure or capture both learner and employer outcomes in the workplace, family, community and society at large.

Measures of Success: Workplace Literacy and Essential Skills Initiatives proposes to adapt a recently developed evaluation model from New Zealand to measure the long-term impacts of workplace LES training initiatives in Manitoba and Nova Scotia using multiple methods, qualitative and quantitative. The project thus directly addresses critical evaluation issues discussed in this paper. Manitoba and Nova Scotia have developed expertise in LES over two decades, reflected in the adoption of skills policy frameworks and action plans, workplace LES initiatives (WEM in Manitoba and WEI in Nova Scotia) supported by business and labour, and significant and sustained investment in workplace programs.

Agreeing on and applying an expanded, common evaluation model grounded in best practice principles to workplace LES training programs in these provinces will make it possible to assess and compare success factors and outcomes — a result with policy and practice implications for governments and employers in both provinces, as well as across the country and abroad.

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