

CONFERENCE BRIEFING

THE ECONOMIC BENEFITS OF IMPROVING LITERACY SKILLS IN THE WORKPLACE BY MICHAEL R. BLOOM, MARIE BURROWS, BRENDA LAFLEUR AND ROBERT SQUIRES

** There are clear economic benefits in improving workplace literacy, but the message has not yet reached many Canadian workplaces.*

** Benefits of literacy training cited by employers were the improved learning facility of the employees, their ability to work together as a team, and improved labour-management relations.*

** Employees with higher literacy skills earn more income, are less likely to be unemployed, have greater opportunities for job mobility, are more likely to find full-time work, and are more likely to receive further training.*

** A male with higher literacy skills makes an extra \$585,000 over his lifetime. For females, the amount is \$683,000.*

Enhancing literacy levels in the workplace improves bottom-line performance for Canada's employers and gives employees a better chance for success in their careers. The results of the Conference Board's study, *The Economic Benefits of Improving Literacy Skills in the Workplace*, demonstrate that there are clear economic benefits for both employers and employees in improving workplace literacy. The findings contained in this Conference Briefing and in the forthcoming research report, to be released in summer 1997, show that employers enhance the performance of their businesses in a wide variety of ways that strengthen the bottom line, and employees are better able to succeed in the workplace when their literacy skills improve.

These findings are significant for both business and individuals. In the past, choices about investing in literacy were often made without having the right information to make the best-informed decision. Today, however, there is growing recognition that literacy is such a critical factor in corporate and personal success that it demands greater consideration and understanding. Employers are beginning to pay more attention to the potential impact of literacy on their business success, and employees are asking themselves to what extent literacy skill levels affect their own personal success and economic wellbeing. This study clearly shows that they should be even more attentive to the literacy issue than they are today.

Literacy is important because it affects our human resource capability. A nation's human resource capability is the key to future competitiveness in an age when barriers to trade are disappearing, capital can be moved quickly, and natural resources are comparatively lowly valued. As a major trading nation, Canada's companies face significant competition in the marketplace. Globalization means that companies are increasingly faced with stiff international competition at home and abroad. Canada has traditionally enjoyed a comparative advantage in workforce skills over many of its competitors. However, recent rapid advances in the literacy skills of employees in other countries threaten our advantage; the competitiveness and profitability of our businesses are at risk. At the same time, the growing complexity of jobs in

Canadian workplaces heightens the demands being placed on Canadian workers. For many, the literacy skills that earlier enabled them to do their jobs effectively are no longer sufficient for them to perform adequately today. Workers need to continuously acquire new skills and qualifications to succeed in modern workplaces.

Traditional Emphasis Is Shifting

Recognition by business and government of the crucial importance of developing human resources is relatively new.

Only recently have they become more aware that the economic well-being of Canada depends crucially on its capacity to make the most effective use of people and to maintain the skills of its workforce.

Traditionally, business and government focused on finding ways to boost economic growth by increasing consumer spending, creating a climate that encourages business investment, and improving Canada's export position. While human resources have always been considered important to economic performance, they usually took a back seat to these demand issues.

Today, both business and government are shifting their emphasis. One reason for this shift is what has been termed by economists as "the productivity paradox." Despite record investment in machinery and equipment, particularly high-tech, the productivity record has been disappointing and Canada's economic performance remains below potential. Unemployment is high, the outlook for youth is discouraging, and the country's relative position in the global economy has fallen.¹ After a decade of study, evidence is beginning to emerge that places part of the responsibility on the shoulders of inadequate employee skills and training. No matter how much capital investment occurs, without adequate training and education employers and their employees will remain unable to harvest the full potential of that investment. In other words, more highly skilled, literate people are key to increasing productivity.

This study explores the economic benefits of improving literacy skills in the workplace, from the perspective of both employers and employees. The Conference Board identified and measured these benefits by conducting a survey of employers as well as by analysing the data gathered on individuals in the 1994 International Adult Literacy Survey (IALS).

Employers Benefit from Enhanced Literacy Skills

Companies offer literacy skills training to their employees because enhanced reading, writing and numeracy skills will ultimately contribute to a stronger bottom line through time savings, lower costs, and improvements in the quality of work. The Conference Board, in a recent survey of 41 companies that offer literacy skills training to their employees, found that these direct benefits are just the tip of the iceberg as to how companies benefit from enhancing the literacy skills of their workforce. Other benefits include unleashing the potential of individual employees, cementing stronger labour-management relations, and moving the entire organization towards corporate goals set to ensure success in a highly competitive, often changing marketplace. All of these benefits from literacy skills training contribute to the company's bottom-line performance.

Tracking the effects of employee training on an organization's operations is very difficult and, as many respondents noted, prohibitively expensive. For these reasons, few companies collect quantitative data on the benefits arising from the full range of training that they deliver to their employees, including literacy skills training. This means that it is not currently possible to derive an aggregated number that conveys the dollar value to Canadian employers of improving their employees' literacy skills. Nevertheless, 21 companies that took part in the survey provided qualitative feedback on the benefits of literacy training, and discussed the impact on their organizations.

1 The Conference Board of Canada, Performance and Potential: Assessing Canada's Social and Economic Performance (Ottawa: The Conference Board of Canada, 1996), p. 3.

The Conference Board survey cited a list of benefits arising from enhanced literacy skills as suggested by human capital theory and by previous studies. Table 1 contains, in descending order according to the number of times cited, the benefits observed by businesses arising from literacy training. The most widely observed benefits consisted of the improved learning facility of the employees, the ability of employees to work together as a team, and improved labour-management relations. Also widely observed were many line and production benefits such as quality improvements, increased output and reduced time per task.

At the very core of these benefits is the significant impact that literacy training has on the self-esteem and self-confidence of the participating individuals. Employers noted that workers suffering from literacy deficits are very conscious of this fact and often try to hide this skill deficit from their co-workers. Their employees recognize that this skill deficit has cut them off from many opportunities to

Exhibit 1

What Is Literacy?

The concept and definition of literacy have changed considerably over the past 20 years. This is significant because it shapes the way that we use information about literacy to develop policies and practices. More complex definitions and concepts that have been recently developed facilitate more sophisticated assessments and evaluations of the impact of enhanced literacy skills on economic well-being. They also support the introduction of increasingly sophisticated and effective interventions to bring about improvements in literacy in the workplace.

Early work in the literacy field defined literacy as a condition that adults either have or do not have. The problems with this approach are that it fails to take into account the multifaceted nature of literacy; it ignores the reality that skills are a moving target because of the changing nature of the skills required to function effectively in the labour market; and it ignores the fact that literacy is about lifelong learning and that literacy skills are maintained and strengthened through regular use.

By comparison, the International Adult Literacy Survey (IALS), a seven-country comparative study of adult literacy, incorporates the most sophisticated definition of literacy developed to date. IALS promotes the definition of literacy as a skill-based proficiency continuum - that is, literacy is a relative rather than an absolute concept. IALS defines literacy as: "Using printed

and written information to function in society, to achieve one's goals, and to develop one's knowledge and potential."

Because literacy cannot be narrowed down to a single skill able to deal with all sods of text, nor can it be defined as an infinite set of skills able to address every type of text, IALS defines three distinct literacy types - prose literacy, document literacy and quantitative literacy - and five levels of literacy within each type.

- Prose Literacy - the knowledge and skills needed to understand and use information from texts including editorials, news stories, poems and fiction
- Document Literacy - the knowledge and skills required to locate and use information contained in various formats, including job applications, payroll forms, transportation schedules, maps, tables and graphics
- Quantitative Literacy - the knowledge and skills required to apply arithmetic operations, either alone or sequentially, to numbers embedded in printed materials, such as balancing a cheque book, figuring out a tip, completing an order form or determining the amount of interest on a loan from an advertisement advance.

Enhanced literacy training offers them the skills they want and need the most. Once obtained, ideas are better understood by employees as words and language take on more meaning. They have greater confidence in their ability to communicate, feel empowered, take ownership of their responsibilities, become more effective and active decision makers, and assume a more engaging and participative role within their organization. From this starting point, many benefits arise from enhanced literacy skills in the workplace. These benefits are described in point form below.

Increased Ability to Handle Training on the Job and Quicker Training Results

- * Literacy training employees' ability to work with oral and written material and to grasp new concepts.
- * Changing economic environment requires businesses to continually upgrade their employees' skills. As employees improve their literacy skills, they are more willing to accept new duties
- * Literacy training helps to establish a strong learning culture in many businesses.

Better Team Performance

- * Successful teamwork requires understanding and communication: stronger literacy skills provide both.
- * Employees with improved literacy skills learn about and understand areas of the organization other than their own and are more willing to participate in dialogue.
- * Collaboration in the learning environment survives the classroom and cements the value of work-related team concepts

Improved Labour-Management Relations

* Companies are often surprised at the extent to which literacy training contributes to better labour-management relations.

* Employees value the courses and view their existence as a positive signal that management is prepared to invest in them. Enhanced literacy skills support the objectives of both labour and management. Labour views it as a means to promote from within and strengthen the job security of its membership; management is eager to upgrade skills and improve productivity.

- The success of the programs demonstrates to all that literacy programs work. As a result, both labour and management often point to workplace literacy training as an example of how the two sides can work together.

Increased Quality

* Employees with improved self-esteem and greater confidence in their ability to communicate are more engaged and participative at work and put their knowledge to better use, to the benefit of the employer.

* Employees become more confident communicators who are more likely to speak up and provide valuable feedback affecting product quality and productivity. Tapping into this knowledge enables companies to improve the quality of products and services.

Reduced Time per Task

* Enhanced literacy skills reduce the time needed to process written information, such as manuals, and to complete paperwork.

* Employees with stronger literacy skills assume ownership, become more active thinkers, and need less time to complete tasks.

* Stronger literacy skills make employees better communicators who can work together more efficiently to get a job done.

Increased Output of Products and Services

* Improved literacy skills increase the amount of goods and services that an employee is able to produce.

* As employees strengthen their literacy skills, they become more confident decision makers, spend less time depending on their co-workers, and have more time to do their job and to be creative.

Reduced Error Rate

* Employees with higher literacy skills are better listeners, pay greater attention to detail and are more self-assured.

* They are more likely to check details when uncertain, commit fewer errors in paperwork, and follow instructions better.

* The outcome can be significant cost savings for the employer.

Better Health and Safety Record

- * Employees with higher literacy skills are more likely to understand, accept, and follow health and safety directives in the workplace.

- * Their improved ability to process information makes them less resistant to change.

- * They are better listeners and become easier to train. These employees are more likely to question new or existing procedures, leading to the development of better health and safety procedures.

Reduced Wastage

- * A more literate, informed and engaged workforce has a greater sense of the entire organization and is more likely to offer cost- saving suggestions.

- * These employees understand better how their individual actions and choices affect the bottom line.

Increased Retention of Employees

- * The establishment of literacy skills training is viewed by employees as a positive sign that companies value education and a learning culture within the organization. As a result, employees are less likely to leave.

- * Literacy skills training is often the first step in an ongoing learning process allowing employees to achieve personal goals and keep pace with a changing workplace that increasingly demands literacy skills.

- * In some cases, formal training leads to recognized certification in skills for which an employee has several years of on-the-job experience.

- * The ability to promote from within is important where there is a limited supply of labour. It can also significantly reduce the costs of hiring and training new employees.

Increased Profitability

- * Employees with higher literacy skills are more informed, are better decision makers, and make better use of their time.

- * Corporate goals are more clearly understood throughout the organization as well as the implications for how they carry out their responsibilities.

- * Higher literacy levels help ensure that the entire organization is moving in the same direction: this alignment can make an important contribution to increasing profitability.

Increased Customer Retention

- * Stronger communication skills help employees identify and meet customer needs more easily and effectively. The result is satisfied customers who are more likely to continue their business relationship with the employers.

- * Courses aimed at improving literacy skills raise the organization's profile in their communities and demonstrate that they are progressive.

Reduced Absenteeism

- * Employees with broader perspectives on how their actions affect the bottom line are less likely to be absent from work.

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Success in Transferring Employees

* Employees with stronger literacy and communications skills move up the learning curve in new positions more quickly.

* Literacy programs provide a forum where companies are able to identify employee talents that may be employed more profitably elsewhere in the organization.

Literacy Enhances Employees' Prospects Now and for the Future

Employees gain significant benefits when they improve their literacy skills. The LALS data reveal that workers with higher literacy skills earn more income, are less likely to be unemployed, experience greater opportunities for job mobility, are more likely to find full-time rather than part-time work, and are more likely to receive further training.

Improved Literacy Leads to Higher Earnings

While the effect is not uniform across all skills types and levels, there is a strong association between literacy skills and employment earnings. Employees with higher literacy skills earned more than those with lower literacy skills. Economic theory explains that the higher employment income reflects the higher productivity of workers with enhanced literacy skills. Chart 1 shows the age-income profiles of typical male and female employees with low document literacy skills and high document literacy skills.² The shape of the profiles reflects the fact that, on average, workers earn less income at the beginning of their career and nearing retirement.

2 Throughout this section, the term 'low' literacy refers to Level 1 literacy as defined by the IALS and 'high' literacy refers to Level 4/ 5 literacy (see Exhibit 1). Because of the small sample sizes of high literacy levels, literacy levels 4 and 5 were combined in the IALS data. The discussion here focuses solely on comparing the lowest and highest literacy levels. By doing so, the comparison offers an indication of the largest scope of differences among literacy levels. In addition, the discussion focuses on document literacy. Details on prose and quantitative literacy will be available in the full report (forthcoming).

Peak earnings occur at age 44 for males with high document literacy skills and age 39 for males with low document literacy skills. For women, peak earnings occur at age 47 for those with high literacy skills and at 45 for those with low literacy skills. Chart 1 reveals that the income potential is greater for those with high literacy skills. Similar results were obtained using the prose and quantitative literacy scales.

Over an employee's working lifetime, a male with high document literacy skills can expect to earn over \$1.743 million in pre-tax income while a male with low literacy skills can expect to earn nearly \$1.158 million. Thus the male with higher literacy skills makes an extra \$585,000 over his lifetime. For female employees, those with high literacy skills can expect to earn \$1.242 million over their lifetime compared with \$559,000 for those with low literacy skills. This represents a difference of \$683,000.

For all three types of literacy skills, the earnings accruing to those with higher literacy skills are shown in Chart 2 for males and Chart 3 for females. For males, the \$585,000 value of the

difference between men with high document literacy skills and men with low document literacy skills is shown in Chart 2 as the difference between the first two bars.

As Chart 1 indicates, male and female employees with the same document literacy skills do not earn the same amount of income. Over their working lifetime, women with high document literacy skills earn 71 per cent of what similar men earn, and women with low document literacy skills earn 48 per cent of what similar men earn. This is not surprising given that numerous studies have charted the male-female earnings gap. Yet Charts 2 and 3 reveal an interesting point - there is greater economic incentive for females to obtain higher literacy skills. In percentage terms, females with high literacy skills earn 122 per cent more than females with low literacy skills, while high literacy males earn only 51 per cent more than low literacy males. Put another way, the earnings gap between high and low literacy levels is greater for women than for men.

Improved Literacy Decreases the Incidence of Unemployment

The strong relationship between literacy and earnings is clear. Beyond this earnings benefit, the importance of improving literacy skills is emphasized by other indicators as well.

For each of the three literacy types, individuals with high literacy skills had a lower incidence of unemployment than those with low literacy skills. Of those with low document literacy skills, 6.7 per cent were unemployed, while only 5.0 per cent of those with high document literacy were unemployed. The comparable figures for prose literacy are 6.9 per cent and 4.9 per cent; and 7.4 per cent and 3.7 per cent for quantitative literacy.

Higher literacy skills also have an effect on the duration of unemployment the lower the literacy level, the more likely it is that the person will be unemployed for longer than one year. Thirty three per cent of unemployed individuals with low document literacy skills had been out of work for longer than one year compared with 28 per cent of those with high document literacy skills.

Individuals with high literacy skills who are looking for full-time work are more likely to find it than those with low literacy skills. Of those individuals in the IALS who worked full time, 24 per cent were at a high document literacy level while only 15 per cent were at a low level. It is also interesting to note that only 19 per cent of employees with high document literacy skills stated that the reason they worked part-time was that they could not find fulltime employment, compared with 42 per cent of employees with low document literacy skills. The main reason why those with higher literacy skills worked part time was to attend school. In other words, part-time employment for those with high literacy skills tends to be voluntary while almost half of those with low literacy skills who work part-time do so involuntarily.

Employees with high literacy skills are more likely to receive further training and education. In the IALS, less than 2 out of 10 employees with low document literacy skills received training and education within the year prior to the survey, compared with almost 7 out of 10 with high document literacy skills. This is a significant difference, since previous studies emphasize that employee training leads to greater productivity and hence higher earnings, less incidence of unemployment and job instability, and increased opportunities for job mobility and advancement. The implication is that individuals entering the labour force with inadequate literacy skills will find it more difficult to remedy these deficiencies.

Dollar Value of Improved Employment Opportunities Is Significant

The dollar value attached to the factors of lower unemployment, more full-time work, and higher incidence of training and education enjoyed by individuals with higher literacy skills is significant. Weighting the average annual incomes (from all sources) associated with each of these factors by the appropriate sample size, the average annual income of a "typical" high literacy individual can be compared with that of a low literacy individual. The average male with high document literacy skills had an income of \$43,495 in 1994 (see Chart 4). The average income for a low document literacy skills male was \$24,029. A female with high document literacy skills had an income of \$27,424 while the income of a female with low document literacy skills was \$13,964. Not only does the higher income gained by those with higher literacy skills reflect increased employment earnings, it also reflects the greater probability of finding full-time work, the greater probability of being employed, and the increased likelihood of receiving training. These factors result in average annual income for high document literacy individuals that is approximately double that of low document literacy individuals.

Call to Action

This study provides concrete evidence that literacy matters. Yet, though the evidence powerfully demonstrates the importance of literacy skills for both employers and employees, the message has not yet reached many Canadian workplaces. Many employers do not yet recognize that a decision to invest in literacy will have a positive overall impact on their organization and their bottom line. Many are also unaware that employees' skills do not survive if unused. The axiom "use it or lose it" refers to the reality that literacy skills developed through training need to be used regularly in literacy-rich jobs if employees are to maintain the literacy gains they have made.

Similarly, many employees are unaware that deciding to improve their literacy skills will positively affect their chances for success in the workplace. The result is that not enough literacy skills training, development and application in the workplace are going on to meet our national needs.

What can be done to improve the situation? How can we bring about the changes in behaviour and support that are needed to increase the strength and effectiveness of literacy skills training and development in the workplace?

First, we can take action to raise awareness of the importance and value of improving literacy in the workplace. Many individuals and organizations can play a role here if they choose.

Employers who already run literacy training programs or who know their potential value can help by spreading the message, especially to their fellow employers. A call to action from one or more employers to other employers would build support and encourage more businesses to get involved in literacy training.

Employees can play an active role. By spreading the word among their co-workers that they personally enjoy real benefits from participating in literacy training they will encourage more employees to get involved themselves. They can spread the message that employees can benefit from improving their literacy skills.

Second, we can establish more literacy training programs. Employers can play a leading role by establishing more programs in their workplaces and provide more places in those programs for employees who wish to take part. Employers can work with their employees and, in some environments, with unions to determine what type of training is most needed and to create programs to meet the need. Some of these training programs may be supported in part by governments.

Third, we can enhance the literacy component of jobs and seek to create more literacy-rich jobs. Employers can work with employees to enhance the literacy dimension of jobs to maintain literacy skills developed through training and apply them to create more value-added products and services.

Fourth, we can develop additional public policies that support literacy skills development. Governments already provide support and encouragement for literacy skills development. For example, the federal government's National Literacy Secretariat funds research into effective practices and supports pilot projects and other initiatives to enhance skills. In addition, governments might help to build broad support for workplace literacy by implementing labour market policies aimed at improving the ability of workers to acquire and enhance literacy skills.

Ultimately, investment in literacy skills development will benefit us all. The time and resources committed are sure to yield a significant return to individuals who take part in training programs. Businesses that engage in literacy skills development will become more competitive and hence increase their profitability. Governments that support these initiatives will be helping to build a stronger, more competitive nation.

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