



# Canadian Labour Market and Skills Researcher Network

## Working Paper No. 143

### UPSKILL: A Credible Test of Workplace Literacy and Essential Skills Training

*David Gyarmati*

*Norm Leckie*

*Michael Dowie*

*Boris Palameta*

*Taylor Shek-wai Hui*

*Sophie Hébert*

Social Research and Demonstration Corporation

October 2014

CLSRN is funded by the Social Sciences and Humanities Research Council of Canada (SSHRC) under its Strategic Knowledge Clusters Program. Research activities of CLSRN are carried out with support of Human Resources and Skills Development Canada (HRSDC). All opinions are those of the authors and do not reflect the views of HRSDC or the SSHRC.

# UPSKILL: A Credible Test of Workplace Literacy and Essential Skills Training

## Highlights

UPSKILL provides a rigorous test for workplace Essential Skills training

The decision to invest in workplace training, though complex, ultimately relates to the expected return on investment. Part of the challenge for employers and policymakers is that there are few high quality studies that have reliably measured the effects of literacy training or adequately measured its return on investment for employers, employees, and government. In an effort to fill this knowledge gap, the Office of Literacy and Essential Skills, a branch of Employment and Social Development Canada, sponsored a large-scale research project to evaluate workplace Essential Skills training using the most rigorous methods. Directed by the Social Research and Demonstration Corporation, the multiyear UPSKILL project resulted in important new evidence that helps establish the business case for workplace Essential Skills training.

All impacts on firms and workers were measured according to the best evaluation methods

UPSKILL utilized a randomized control design to provide the most reliable measures of the impacts of Essential Skills training in the workplace. A total of 88 firms in the Accommodation and Food Services Sector, primarily hotels, were randomly assigned to a program group where employees were each offered a maximum of 40 hours of Literacy and Essential Skills training on-site during working hours, or to a control group whose employees did not receive the training. Random assignment efficiently controls for *all* factors, other than the UPSKILL training, which could affect employee and employer outcomes. Thus program-to-control-group comparisons provide reliable measures of the impact of UPSKILL training.

UPSKILL firms earned a 23 per cent rate of return on training investment

As a result of the training delivered through the UPSKILL program, firms experienced gains in revenue, cost savings from increased productivity, and reductions in hiring costs that amounted to about \$4,600 per participant. When firms are assumed to bear the full costs of training and release time for workers, their net benefit is \$577 per participant, for an average return on investment of 23 per cent.

Positive returns on investment for employees and government

Employees also experienced a substantial positive return on investment from UPSKILL training, as they bear few costs under the workplace delivery model. Earnings gains from increased job retention were significantly larger than the modest investment of personal time that participants devoted to complement the on-site training outside of working hours.

Governments also realized a positive return on their investment. As a baseline scenario for the cost-benefit analysis, governments were assumed to cover only costs of the program launch for sector-level activities: sector engagement, needs analysis and basic curricula design. As a result of the training, governments experienced gains in terms of increased income, corporate, and sales taxes, as well as a small reduction in transfers for Employment Insurance benefits. These gains more than offset the costs of sector-level activities to support the launch of workplace Essential Skills training.

## Effects of Literacy and Essential Skills Training on Workers:

### ➤ Increased literacy scores

Participants' document use scores on a standardized literacy test increased by 11 points immediately after training and by up to 18 points six months later, compared to the changes experienced by workers in the control group. Among those assessed more than a year after enrolment, a 23-point impact was observed, which is equivalent to about half a level on the internationally recognized literacy scale. This provides evidence that improvements in literacy skills can occur fairly quickly after training, and increase subsequent to training, as individuals utilize their skills.

Along with the average improvement in skill scores, the percentage of participants achieving the literacy skills level required in their job increased substantially. For the average employer with 15 employees, 3 additional workers meet the literacy requirements of their job following UPSKILL training.

### ➤ Improved job performance

Significant gains in job performance were also observed among UPSKILL program group members including a greater breadth of service quality, improved relations with customers, and increased task efficiency. At the same time, Essential Skills training led to a substantial increase in the number of employees achieving industry certification standards of job performance, compared to the changes observed among the control group.

### ➤ Increased job retention

UPSKILL training led to significantly higher rates of job retention among participants. Fully 91 per cent of participants worked with the same employer up to a year after enrolment, compared to 83 per cent of those in the control group. Participants were also less likely to be unemployed a year after enrolment: only 3 per cent had an unemployment spell compared to 9 per cent in the control group. On average, participants worked nearly four weeks more over the year compared to the control group. Participants were also slightly less likely to receive Employment Insurance benefits in the year after enrolment.

### ➤ Improved health and well-being

In addition to improving labour market outcomes, literacy has been linked with a number of non-financial outcomes such as attitudes, confidence, social capital, and health and well-

being. In terms of mental health, program group members were nearly 25 percentage points more likely than the control group (76% vs. 51%) to have reported a reduction in their levels of stress experienced in the workplace since enrolling in the UPSKILL training program.

➤ Effects were greater for employees with lower pre-training skills

UPSKILL training had larger effects on job performance for participants who had lower levels of pre-training literacy. This reinforces the fact that Essential Skills training can benefit a whole spectrum of workers, not just those who are already skilled. Furthermore, a broad mix of workers benefitted both socially and economically from training, including men, women, immigrants and non-immigrants alike.

## Effects of Literacy and Essential Skills Training on Firms:

➤ Increased customer satisfaction

Over 70 per cent of program group firms reported significant increases in satisfaction of hotel guests compared to less than 40 per cent of the control group. Significant reductions in customer complaints were also observed among program group firms, a key driver of customer loyalty, return visits, and repeat sales. Over three quarters of firms in the program group reported reductions in the incidence of customer complaints compared to less than a quarter of control group firms.

➤ Cost savings and productivity gains

Employers recorded significant reductions in wastage and errors in both core job tasks as well as administrative activities. Nearly half of program group firms reported significant reductions in error rates, compared to only 1 in 5 firms in the control group. These efficiency gains translated into cost savings of about \$1,000 per participating employee in the year after enrolment. Accompanying these gains, were reduced time spent by supervisors monitoring and correcting work of their staff, adding another \$1,200 per participant in savings over the follow-up period. Firms in the program group also experienced a reduction in hiring cost arising from increased job retention. For the average employer with 15 employees, this translated into about one less hire that needed to be made during the year after enrolment.

➤ Increased revenues

Program group firms were much more likely to report an increase in customer loyalty. This was accompanied by a positive impact on occupancy rates, with about half of program group firms having experienced an increase compared to about a third of the control group. It is estimated that these gains in occupancy rates, which were accompanied by small increases in spending on food and beverages, added some \$2,200 in incremental revenues, per participant, for program group firms over the year following enrolment.

- Benefits were achieved with modest investment of workers' time

The amount of release time that employers made available to participants to engage in training was, on average, just under 20 hours per participant – only about half of the 40 hours that was offered. However, once participants began the training, there were very high attendance rates and participants missed only a small fraction of what was available.

- Larger impacts were seen in firms with greater breadth of business needs

Participants who were working in firms that had reported a high degree of needs at the time of enrolment experienced substantially larger impacts on their literacy scores and job performance than firms with fewer core pre-training business needs.

## Conditions for Success

- Understanding worker and business needs is key to maximizing ROI

The degree of need among both learners and businesses are key considerations for practitioners and employers in determining whether or not to provide LES training and how best to deliver it in order to produce positive effects in a given workplace context.

The corollary is that firms that do not have or cannot articulate clear business needs may not be ready for LES training. Similarly, workers that do not have explicit and unaddressed gaps in job performance that are linked with low literacy skills, may not be well suited for LES training. A strong business case for workplace LES training is dependent on an understanding of these underlying needs of workers and firms.

- Firms' commitment to learning and training matters

The study considered the importance of a firm's learning culture and commitment to training. UPSKILL results suggest that a firms' prior investments in training, through either direct expenditures and/or incentives for workers, are important indicators of future impacts of Literacy and Essential Skills training.

- Trust and workers' receptivity to learning also matters

Impacts of UPSKILL were larger for those with greater receptivity to learning and higher levels of trust. Low levels of trust can diminish the application of newly developed skills to work-related tasks. Situations within the workplace that may diminish trust, like management-union disagreements or recent layoffs, may thus diminish the benefits of training.

- Implementation can be difficult for small firms

The amount of release time that employers can make available, given their current business demands, is an important barrier to training. Small firms, with less than 20 employees, find it particularly challenging. In the UPSKILL project, even though a matching subsidy for release

time was available (half of the release time, up to 20 hours per participant would be reimbursed) very few employers maximized this subsidy by providing the full amount of training available. Alternative approaches that better address workplace constraints, such as training through mentorship or with off-site cluster based delivery models for small businesses, should be explored.

➤ Alignment with business needs through effective customization

UPSKILL results suggest that the degree of alignment that instructors are able to achieve between the training curricula and the business needs of employers, through effective customization, bears a significant influence on the degree of job performance improvement. The more clearly that employers can articulate tangible business needs, the easier the alignment will be achieved and the more likely the training will produce performance gains. Customization is not simply an exercise in using workplace materials. Rather, it is about ensuring the training will meet the precise business needs of the employer and the learning needs of participants in ways that improve their job task performance. A highly-relevant occupational and business needs framework helps to achieve this while also maintaining high levels of engagement in Essential Skills training activities among learners.

➤ Adopting a sector-based approach to design and implement training

A sector-based approach can be a particularly effective and efficient way to design a skills and performance framework along with a core Literacy and Essential Skills training curriculum for given occupations, which will help training practitioners achieve business alignment in a cost-effective way. A sector-based approach also facilitates communications between training practitioners and employers, as it can rely on existing industry networks that often build on long-established trusting relationships with employers.

➤ Government can help by supporting sector needs analysis and curriculum design

Governments can play a key role in developing and implementing an overall strategy for engaging employers in workplace training through support for sector needs analyses and the design of core training curricula. These fundamental processes involve initial costs that no single firm will choose to bear. By supporting the `start-up costs` for a sector-targeted needs analysis and the design of occupation-specific core curricula, governments can absorb some of the costs that individual firms are reluctant to bear. For projects of similar scale to UPSKILL, these costs would represent about 13 per cent of the total unit costs for Essential Skills training delivery.

**UPSKILL was implemented in partnership with the Canadian Tourism Human Resource Council, the Training Group at Douglas College, SkillPlan, and more than a dozen industry training partners in eight provinces.**