

Exploring the Changing Nature of Work and Lifelong Learning: Preliminary Findings of a Canadian National Survey

David W. Livingstone
OISE/University of Toronto

Abstract: Preliminary findings from a large Canadian survey are used to estimate the current patterns of adult education course participation and informal learning as well as patterns of paid and unpaid work. Recent trends and relations between adult learning and work are assessed. Contending theories of learning and work are also discussed.

Introduction

The National Survey on the Changing Nature of Work and Lifelong Learning (WALL) is being conducted in early 2004 with a large representative national sample of the adult Canadian population (N=9,000+) to provide unprecedented quantitative detail on learning and work activities and their inter-relations. The WALL survey is intended to address three basic questions: (1) what are the current forms, contents and outcomes of the array of learning activities of Canadian adults? (2) How have changes in the nature of paid and/or unpaid work in the past five years been associated with adults' learning practices? and (3) what differences are there in these learning and work relations between social groups and especially between socially disadvantaged groups and others? The data should aid in assessing the suitability of contending theories of education and employment relations and in informing relevant policy debate, particularly around the significance of unpaid work and informal learning in "advanced" societies. This paper presents preliminary general findings based on the first 6,000 respondents, with a primary focus on currently employed wage and salary earners.

Findings on Work

Current wage and salary earners report significant organizational changes in their workplaces over the past five years. Nearly half of their organizations have reduced their number of employees, over 40 percent have increased reliance on part-time or temporary workers, a similar proportion have increased job rotation and multi-skilling of remaining jobs, over a third have increased overtime hours and over a quarter have reduced their numbers of managerial personnel. Over two-thirds indicate that the work techniques and equipment regularly used in their jobs has changed at least moderately over the past five years. About two-thirds of employees experience their jobs as stressful at least half of the time. About half have changed employers within the last five years while around a third would prefer to work less hours than they now do.

In this context of apparent organizational restructuring and work intensification, there is a widespread perception that job skill requirements and worker responsibilities are both increasing. Nearly 60 percent think that the level of skill required to perform their jobs has increased in the last five years while almost none perceive a decrease in skill level required. Surveys since the 1980s have found a widespread acceptance of the notion of inter-generational increases in required skill and judgment (Livingstone, Hart and Davie, 2003). Somewhat more accurate estimates of the extent of increase are provided by comparing employees' views in the current survey of the formal education and on-the-job-training needed to do their own work with a national survey conducted in 1982-3 (see Clement and Myles, 1994). In 1983, nearly two-third of Canadian employees indicated that they thought their jobs required a high school diploma or

less, while just over a third felt they required post-secondary certification (special tabulation). In the current survey, the proportions have almost reversed with over half indicating that they need a post-secondary credential to do their job. In terms of on-the-job training, the differences are less pronounced. Forty percent said they needed less than a month's training to perform their job in 1983 while about a quarter do so now. Conversely, forty percent now indicate they need more than a year to master their jobs compared to a little more than a quarter in 1983. The more incremental increase suggested by specific job training estimates are more consistent with the results of more objective measures of the changing skill levels of the job structure in advanced capitalist societies (see Livingstone, 2004). In terms of decision-making responsibility, a small majority of employees now express the view that they are able to plan or design some of their own work most of the time. A similar majority say they participate in decisions about such matters as products or services delivered, number of people employed and budgets. In the 1983 survey, less than 30 percent indicated such participation. However, when asked more specifically about having any formal supervisory role, the increase was only from 35 percent to around 40 percent over this period.

These findings suggest a substantial amount of organizational restructuring, job churning, work intensification and increased credential entry requirements in the Canadian labour force in recent years, along with as some more incremental increases in employee performance skills and responsibilities.

The current survey also provides estimates of unpaid work, including household work, child and elder care and community volunteer activities which will be analyzed in detail later and compared with results of other surveys including the 1998 national survey of informal learning. Suffice it to say here that these forms of work are very substantial and essential to adequate understanding of both work and learning and their inter-relations (see Livingstone, 1999, 2002).

Findings on Learning

There has been tremendous growth in the number of Canadians with a college or university education through the post-WWII era and especially in the 1990s. In 1951, only 2 percent of adults had any post-secondary education; by 2001, more than half did. By 2000, over 40 percent of the population aged 25 to 64 had completed either a college or university degree, surpassing the United States to become the highest level in the world (Canadian Education Statistics Council, 2003). By 2003, nearly 60 percent of the 25 to 64 employed labour force had attained post-secondary completion (Labour Force Survey 2003. Custom tabulation). The current survey finds that wage and salary earners have even higher levels of formal educational attainment. This is one of the most highly schooled labour forces in the world. .

Although Canadian surveys of adult education and training found very large increases in participation between 1960 and the early 1990s, surveys in the 1990s found little growth. Indeed, adult education participation rates declined between 1993 and 1997. Using Statistics Canada criteria which exclude most full-time students, about 28 percent of adults and about 35 percent of the employed labour force participated in courses and training programs in 1997, the most recent year for which national data are currently available; these are substantially lower participation rates than several other OECD countries achieved during the decade (Canadian Education Statistics Council, 2003). Other more recent provincial surveys indicate increases since 1997 (Livingstone, Hart and Davie, 2003). The current national survey finds that over 40 percent of the adult population and over 50 percent of the employed labour force participated in courses during the past year. All of these figures include full-time students over 24 enrolled in post-secondary programs. But whether these full-time students are counted or not, there has been a

substantial gain in adult participation rates since the last national survey of 1997, a gain that may move Canada to the upper echelon of OECD countries. A majority of the respondents also indicate that they intend to take more courses in the near future and that most of the courses they have taken or wish to take are job-related. There is also very substantial unmet demand, such that about half of the labour force wanted to take a course that they could not take last year. However, participation rates remain highly unequal, with those having the highest levels of formal schooling being about twice as likely as school dropouts to have taken a course in the past year.

The current survey is distinctive in its extensive measures of informal learning and replication of the only other prior Canadian national survey of informal learning in 1998 (see Livingstone, 1999). Informal learning is conceived here as both non-taught or self-directed learning activities as well as informal education provided by non-official mentors, and it is estimated by respondents' self-reports of their intentional learning (see Livingstone, 2001). Detailed presentation is beyond the scope of this paper but, based on a series of questions about informal learning in relation to paid work, housework, volunteer work and general interests, the estimated average amount of time that Canadian adults are spending on intentional informal learning activities is now over 12 hours per week. Among employees, over 95 percent identify participation in some kind of informal learning, including about 85 percent in job-related learning, around 80 percent in general interest learning, about 75 percent in housework-related learning and around 30 percent in volunteer work-related learning. On a per capita basis for all employees, this computes to about 4.5 hours per week on job-related informal learning, 4 hours on housework-related learning, 3.5 hours on general interest learning and one hour a week on volunteer work-related informal learning. In comparison, the per capita average time devoted to all adult education courses is about 1.5 hours per week. Intentional informal learning remains the generally hidden part of the "iceberg" of adult learning, a much more extensive activity among the adult population and employed labour force than formal schooling or further education courses. But the incidence of intentional informal learning appears to have declined somewhat over the past five years in Canada from the estimated prior average of about 15 hours per week. Responses to the current survey may be somewhat more constrained by additional preceding questions on other uses of time but the learning questions are essentially the same as in the 1998 survey. Other intervening provincial surveys have found similar trends of increasing course participation and declining incidence of informal learning during this period (Livingstone, Hart and Davie, 2003). This suggests a substitution effect, with the incidence of informal learning diminishing when access to institutional forms of adult education improves. In any case, informal learning remains much more pervasive generally and especially significant in the lives of non-course participants. In contrast to course participation, continuing participation in some forms of informal learning activities remains substantial in virtually all social groups regardless of level of schooling, age, employment or occupational status.

So Canadian adults and employees in particular are among the most highly educated in the world, have recent adult education participation rates that are comparable to high rates among other OECD countries and have extensive documented self-reported informal learning profiles (which are not available for recent years in most other countries (see Livingstone, 2001). While the substantial discriminatory financial and time barriers in access to adult education course that were found in prior studies (see Livingstone, Raykov and Stowe, 2001) do persist for many in the current survey, virtually all Canadian adults are actively involved in some deliberate array of learning activities. The country warrants the term "learning society".

Education-Job Matching

In the late 1980s, two-thirds of Canadians seemed to expect that post-secondary certification was needed to get along in this society (see Livingstone, Hart and Davie, 2003). In the current survey, about 80 percent express this view. A majority indicate that their jobs now require post-secondary education both for entry and performance and even greater numbers already possess such credentials. Over three-quarters think that their jobs often require that they learn new skills.

However, Canadian employees are now much more likely to be underemployed than underqualified for their jobs. In spite of the rapid introduction of new information technologies, the majority of employees indicate that their computer skills are higher than required for their main job while less than 10 percent think their computer skills should be upgraded to meet requirements. More generally, over a third of employees have at least one credential greater than is required for entry into their current job while around 10 percent are now underqualified (mainly older employees through credential inflation by their employers). Similarly, employees are over twice as likely to rate themselves as underemployed as to see themselves as underqualified in terms of actual performance skills need to do their jobs. Other recent research, based on either more objective measures of skill attainment and job requirement matching (see Livingstone, 2004) or on more in-depth ethnographic studies (Livingstone and Sawchuk, 2004), have found more substantial and increasing levels of underemployment. The current survey also contains estimates of the usefulness of both courses and informal learning for jobs. The general finding is that informal learning is rated as at least marginally more useful than course participation. For example, nearly 80 percent of course participants state that courses have been at least fairly useful to do their job better, whereas about 90 percent of the much larger number relying on informal job-related learning think of it as fairly useful. More specifically, around 70 percent of all employees rely mainly on co-workers or their own informal learning as the most important sources of knowledge to do their jobs, rather than training programs; over forty percent have sought informal education or advice about job skills from mentors in the past month. These findings suggest that a very substantial amount of workers' knowledge and skill remains hidden from or ignored by employers and that the actual extent of underutilization and recognition of many workers' capacities may in fact be underestimated both by workers themselves and by most prior studies.

Both substantial workplace organizational restructuring and educational expansion in recent years have challenged education-job matching and contributed to growth of conditions underemployment and underqualification. Such mismatches are not a new phenomenon. But the weight of evidence indicates that the aggregate growth in educational participation exceeds the more incremental increase in job performance skill requirement, and that underemployment of the attained knowledge and skills of the employed labour force is a significantly more widespread and increasing condition than the existence of underqualification and skill shortages.

Theories of Learning and Work Relations

Conventional explanations of relations between education and employment are now generally based on one of two simple theories—with growing numbers of modifications. “Human capital” supply theories assume that investing in education will continue to result in job creation. “Knowledge-based economy” demand theories assume that rapid increase in workplace skill requirements is outpacing the availability of qualified workers and therefore education and training efforts must be redoubled. The current survey, as well as growing body of other recent

studies, suggests that both theories fail to grasp the realities of supply and demand for qualified workers in today's labour market. In short, there is now a chronic over-supply of qualified workers looking for jobs and little evidence that job skill requirements generally exceed the aggregate skill level of the current labour force (see Livingstone, 2004).

A more fruitful emerging theoretical perspective on the changing nature of work, adult learning processes, and learning-work relations would draw on flexible accumulation theory, socio-cultural theories of learning and a supply-demand interaction theory of education-employment relations. First, flexible accumulation theory (Harvey, 1989) recognizes that internal organizational structures are becoming increasingly destabilized and that the structures of work and employment relations are being refashioned in more complex and contradictory ways. Dominant posited tendencies include sharpening divisions between core and peripheral employees, expanded centrality of the formal knowledge of professional employees, further standardization and quantification of work methods of other employees, and growing reliance on subcontracting by core organizations, all of which have been tentatively confirmed by the current survey as well as most thorough empirical assessments to date (Vallas, 1999). Secondly, learning is now commonly understood as an interactive process through which learners socially construct their own understanding of the world they live in. Vygotsky's (1978) socio-cultural theory of learning and the development of this perspective in activity theory and situated learning theory informed the gathering of our survey data on work-based learning. Preliminary results so far are consistent with the view that Canadian employees' learning is guided by their flexible accumulation of knowledge and skills in relation to a widening array of contextual factors within and beyond workplaces. Thirdly, a supply-demand interaction theory of education-employment relations posits that the degree of matching of knowledge attainments and job requirements is determined by continuing negotiations between specific social groups with differential power (see Livingstone, 2004). The lowest levels of utilization of working knowledge are posited to be in the jobs held by those in lower occupational class positions, as well as among those job holders whose general subordination in society has put them at a disadvantage in negotiations over working conditions, especially women, younger people, ethnic and racial minorities, recent immigrants and those labelled as "disabled". This interactive theory of education and employment is extended to the spheres of unpaid work and informal learning, where the greatest discrepancies are also posited to be among those with the least economic or political power to define appropriate requirements for their work. The preliminary research findings from the current survey so far generally confirm these posited patterns of learning and work relations. Further development of this theoretical perspective of knowledge-power relations and completion of related case studies may provide better understanding of the distinctiveness of actual adult learning practices in the "new economy". This further nuanced research could also offer a more sensitive guide to relevant social policy issues (for example, issues of workplace democratization, equitable recognition by educational institutions and employers of uncredentialed adults' relevant prior learning, and social justice for the learning and work capacities of subordinated social groups generally) than do the simpler assumptions of "human capital theory" or a "knowledge-based economy" perspective.

References

- Canadian Education Statistics Council. (2003). *Education indicators in Canada 2003*. Toronto: Canadian Education Statistics Council.
- Harvey, D. (1989). *The condition of postmodernity*. London: Blackwell.
- Livingstone, D.W. (1999). Exploring the icebergs of adult learning: Findings of the first

- Canadian survey of informal learning practices. *Canadian Journal for the Study of Adult Education*, 13(2), 49-72.
- Livingstone, D.W. (2001). *Adults' informal learning: Definitions, findings, gaps and future research*. Position paper for the Advisory Panel of Experts on Adult Learning, Applied Research Branch, Human Resources Development Canada, January 31, 2001. NALL Working Paper Series No. 21. [On-line]. Available: [http://www.oise.utoronto.ca/depts/sese/csew/nall/res/21adultsifnormallearning .htm](http://www.oise.utoronto.ca/depts/sese/csew/nall/res/21adultsifnormallearning.htm)
- Livingstone, D.W. (2002). *Working and learning in the information age: A profile of Canadians*. Ottawa: Canadian Policy Research Networks. [On-line]. Available: <http://www.cprn.org/en/doc.cfm?doc=56>
- Livingstone, D. W. (2004). *The education-jobs gap: Underemployment or economic democracy*. (2nd ed.). Toronto: Garamond Press,
- Livingstone, D.W., D. Hart & L. Davie. (2003). *Public attitudes toward education in Ontario 2002: Fourteenth OISE/UT survey*. Toronto: OISE Press. [On-line]. Available: www.oise.utoronto.ca/OISE-Survey
- Livingstone, D.W., M. Raykov & S. Stowe. (2002). *Interest in and factors related to participation in adult education and informal learning*. (Research Paper R-01-9-3E). Hull: Applied Research Branch, Human Resources Development Canada.
- Livingstone, D.W. & P. Sawchuk (2004). *Hidden knowledge: Organized labour in the information age*. Toronto: Garamond Press, and Boulder: Rowman & Littlefield.
- Myles, J. & W. Clement. (1994). *Relations of ruling: Class and gender in postindustrial societies*. Montreal: McGill-Queens Press.
- Vallas, S. (1999). Rethinking Post-Fordism. *Sociological Theory*, 17(1), 68-101.
- Vygotsky, L. (1978). *Mind in society*. Cambridge: Harvard University Press.