Highlights from the Second Report of the International Adult Literacy Survey: *Literacy Skills for the Knowledge Society*

Introduction

While most people can read, the real question is whether their reading and writing skills meet the challenge of living and working in today's information-rich and knowledge intensive society and economy. This latest report on the International Adult Literacy Survey (IALS) ***Literacy Skills for the Knowledge Society*** tells us that literacy means more than knowing how to read, write or calculate. It involves **understanding** and **being able to use** the information required to function effectively in the knowledge-based societies that will dominate the twenty-first century.

The purpose of formal schooling has always been to ensure that new generations develop the skills they require. Yet, the challenge of maintaining and improving the literacy skills of adults is an issue that is much broader than formal education. The International Adult Literacy Survey reveals that literacy skills can be lost if they are not used throughout life. Consequently the study argues for the development of a culture committed to learning and to the creation of literacy-rich environments wherever people live and work, that is, in the home, in the community and in places of employment. It suggests that an investment in literacy is a long-term interest-bearing bond which pays substantial benefits for individuals, for employers and for nations.

The search for solutions to this adult literacy challenge requires a commitment to concerted action. Governments can formulate strategies for improvement but delivering those strategies to create a literate society requires partnerships between schools, employers, workers, governments and communities. It also requires a change in behaviour by individuals. Furthermore, raising the level of a nation's literacy competence demands more than just policies focused on literacy as a single issue. ***Literacy Skills for the Knowledge Society*** concludes that it is also important that the goal of increased literacy skill be supported across a broad range of other policy areas such as those related to youth, seniors, employment, human resource development, health, social welfare and crime prevention.

Literacy Skills for the Knowledge Society is a comparative study of literacy skills in twelve countries, Australia, Belgium (Flanders), Canada, Germany, Ireland, the Netherlands, New Zealand, Poland, Sweden, Switzerland (French- and German-speaking) the United Kingdom and the United States. It is published by the Organization for Economic Co-operation and Development (OECD) in cooperation with Statistics Canada and the National Literacy Secretariat and the Applied Research Branch, both of Human Resources Development Canada (HRDC), and contains important insights into issues related to literacy. One should not take the report, however, as the last word on literacy, but as a contribution to an evolving body of work.

Defining and measuring literacy

The term "literacy" refers to a particular skill, namely the ability to understand and use printed information in day-to-day activities, at home, at work and in the community.

People face a variety of written information every day that requires them to perform different tasks. In order to measure the proficiency levels in the processing of information, IALS examined three literacy domains: prose, document and quantitative.

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; and

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 chequebook, figuring out a tip, completing an order form or determining the amount of interest on a loan from an advertisement.

The literacy tasks developed for IALS were scaled by difficulty ranging from zero to 500 points. The range was then divided into five broad literacy levels.

Level 1 indicates very low literacy skills, where the individual may, for example, have difficulty identifying the correct amount of medicine to give to a child from the information found on the package.

Level 2 respondents can deal only with material that is simple, clearly laid out and in which the tasks involved are not too complex. This is a significant category, because it identifies people who may have adapted their lower literacy skills to everyday life, but would have difficulty learning new job skills requiring a higher level of literacy.

Level 3 is considered as the minimum desirable threshold in many countries but some occupations require higher skills.

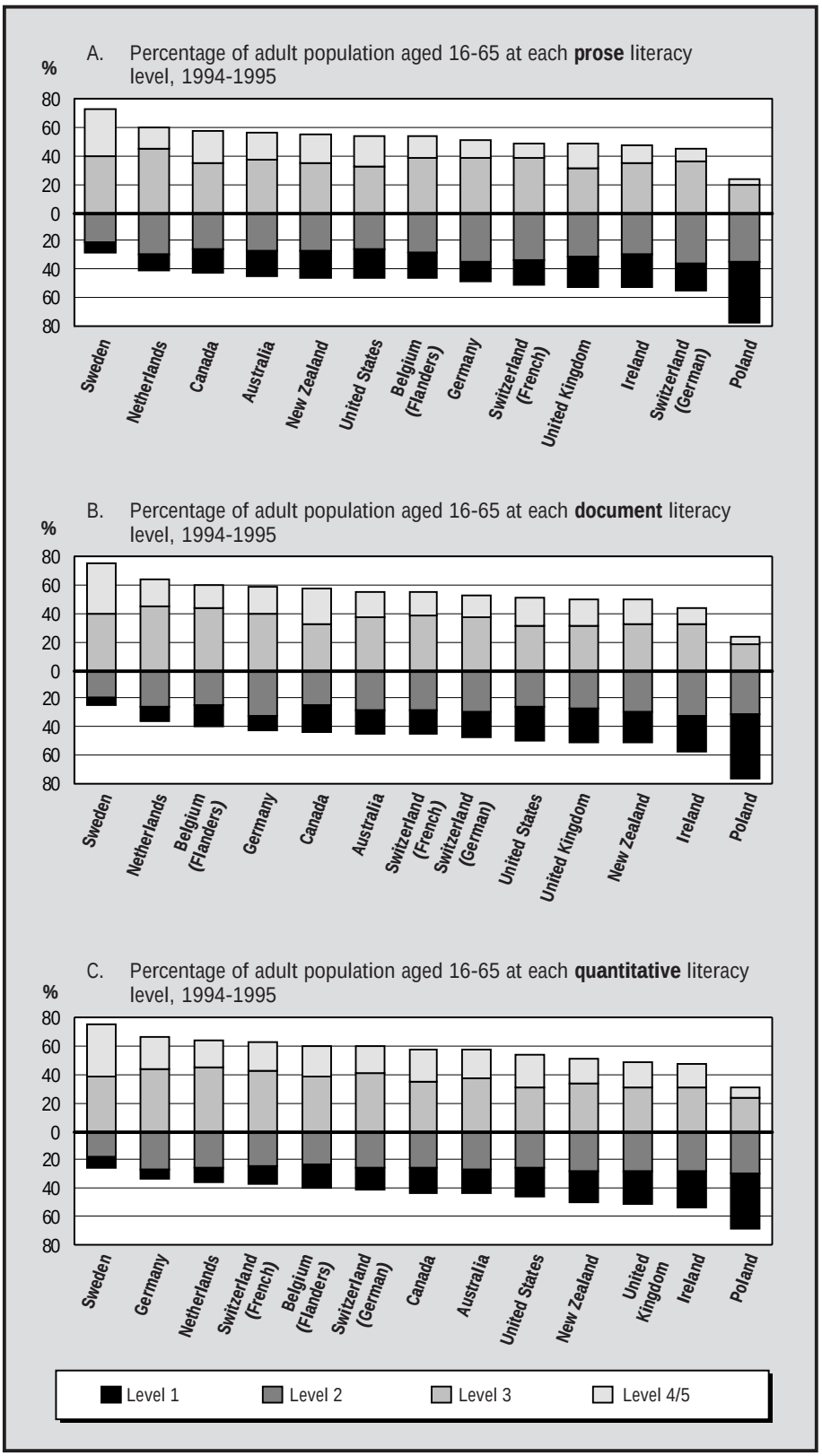
Levels 4 and 5 show increasingly higher literacy skills requiring the ability to integrate several sources of information or solve more complex problems. It appears to be a necessary requirement for some jobs.

Distributions of adult literacy skills by country

Important differences in the population distribution of literacy skills exist, both within and among countries. However, an attempt to rank countries using the IALS results is not possible (or desirable) as the relationships are complex, varying from scale to scale and yielding different comparisons from level to level.

FIGURE 1.2

Comparative distribution of literacy levels



Countries differ widely with regard to the educational attainment of their adult populations. For example, Belgium and Ireland have relatively small proportions in all age groups who have completed secondary school, in contrast to Germany, Switzerland and the United States, where large proportions in all age groups have at least this level of education. There are also considerable between-country differences in educational attainment. While overall attainment is high in the United Kingdom, there is a large difference between older and younger adults. In contrast, there is little age difference in attainment in Australia.

The figure shows the proportion of adults in an age group who have received at least upper secondary education, including those who have acquired tertiary education, for each country.

Countries are ranked by the proportion in levels 3 and 4/5.

Source: International Adult Literacy Survey, 1994-1995.

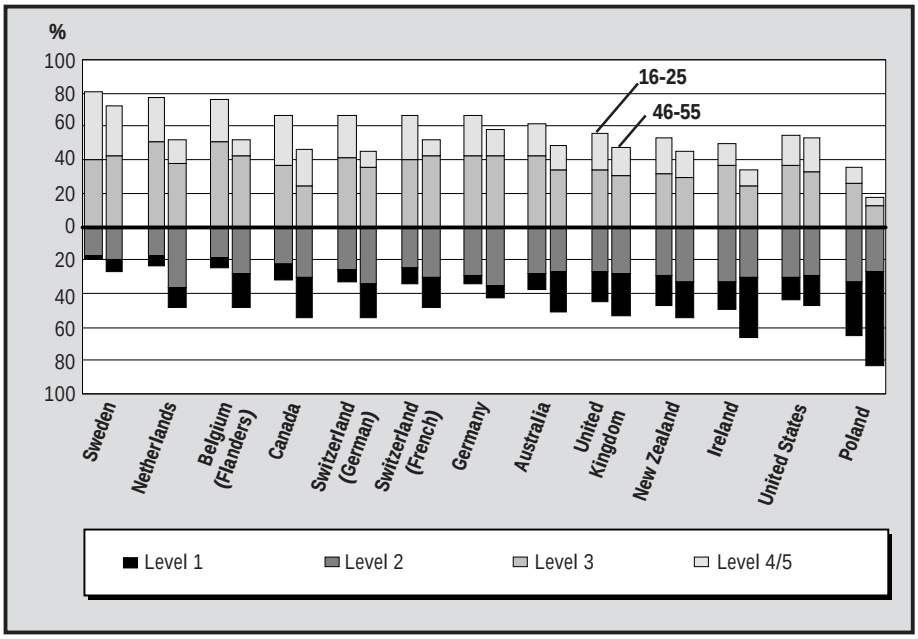
In all countries the literacy skills of the younger age group are higher than those of the older group. In some, Belgium (Flanders) and the Netherlands, for example, the difference in skill is large.

The left bar of each pair represents the proportion of adults aged 16-25 at each document literacy level and the right bar the proportion of those aged 46-55 at each proficiency level. The reference line lies between level 2 and level 3.

FIGURE 1.6

Literacy proficiency and age

Proportion of persons aged 16-25 and 46-55 who are at each document litracy level, 1994-1995



Countries are ranked by the proportion of the population aged 16-25 who are at levels 3 and 4/5.

Source: International Adult Literacy Survey, 1994-1995.

Low literacy skills are found in a significant proportion of the general adult population in all the countries surveyed. At least 25% of the adults in these countries fail to reach the 3rd of the five IALS levels of literacy proficiency. Level 3 is regarded by many experts as a minimum for coping with the complex demands of everyday life and work in OECD countries.

The benefits of literacy

Literacy has long been valued in its own right and for the access it provides to other benefits such as employment, high income and the capacity to participate fully in society. What has often not been recognized is the full range of benefits to be derived from a literate population, for both the economy and for society

Productivity and earnings

OECD countries receive measurable and substantial positive economic returns as a result of strong literacy skills. Data clearly show that the percentage of people with relatively high incomes grows with increasing levels of literacy proficiency. The impact of people's levels of literacy skill on their wages is greatest the more open and flexible the economy, such as Canada and the United States. The wage penalty associated with low performance is large across all countries.

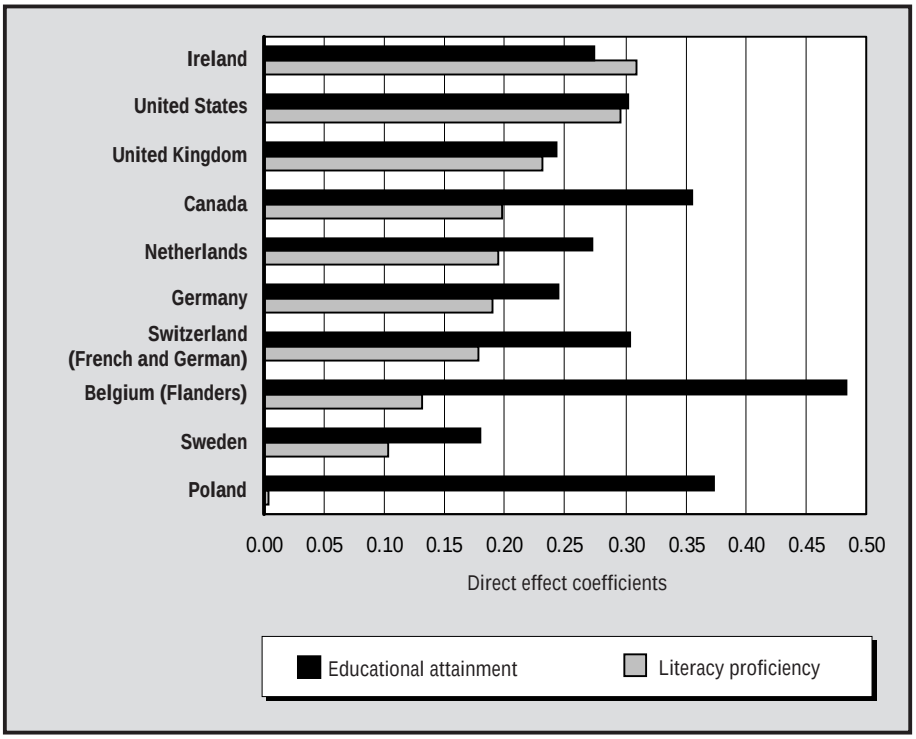
Educational attainment has a large effect on income in all countries studied. The effect is largest in Belgium (Flanders), Canada and Poland and weakest in Sweden, which has a compressed wage structure. Literacy produces a wage effect that comes on top of that of education. The literacy wage premium is largest in Ireland and the United States; there are similar wage effects in Canada, Germany, the Netherlands and the United Kingdom.

The effect of literacy on income is net of the combined influences of gender, parental education, respondents' education and experience in the labour market.

FIGURE 2.5

Net direct effects of education and literacy on income

Regression coefficients showing the strength of the direct effect of education on income and of literacy on income net of the effects of background variables, 1994-1995



Countries are ranked by the net direct effect of literacy on income. See notes to Table 2.5.

Source: International Adult Literacy Survey, 1994-1995.

While educational attainment is an important determinant for income, IALS demonstrates that literacy proficiency has an independent and substantial effect on income in all countries. Further, the impact of a person's literacy on his or her income is in addition to, and on top of, the effect of educational attainment on earnings. The only exception is Poland, where the influence of literacy skill is still negligible compared with the overwhelming impact of educational credentials.

Higher income generated through improved literacy skills and greater productivity will contribute to higher government revenues. Even a relatively small increase in national productivity through improved literacy will have a relatively large impact on public revenues. For example, a 2 percent increase in wages and earnings from improvements in national literacy would provide approximately a 1.8 percent increase in revenue in a country that is dependent primarily on value-added tax.

Labour force participation and unemployment

Employment and unemployment are strongly related to levels of literacy proficiency. Persons who are more literate are likely to have better jobs, have higher levels of productivity and earnings, and are less vulnerable to long-term unemployment. Higher levels of literacy allow for efficient learning and thus allow workers to adapt easily to new technologies and changing job requirements.

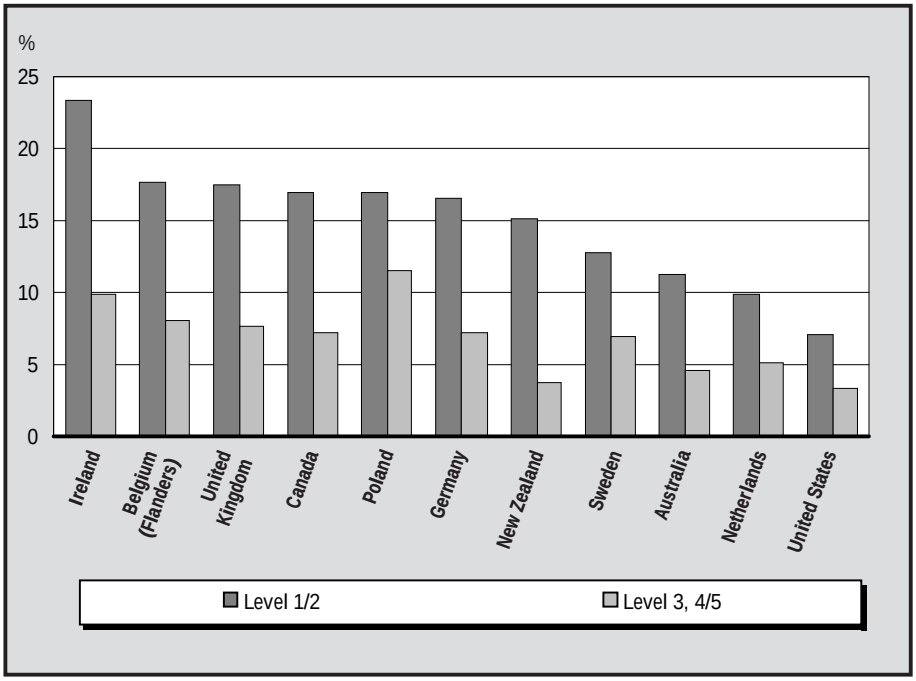
Employment and unemployment are strongly related to literacy proficiency: low-skilled adults have a greater chance of being unemployed than high-skilled adults.

Figure 2.8 shows the proportion of the labour force actively seeking paid work during the year preceding the interview.

FIGURE 2.8

Unemployment and literacy

Unemployment incidence (rate) by level of literacy proficiency for the labour force aged 16-65, document scale, 1994-1995



Countries are ranked by the incidence of unemployment of those with level 1 and 2 skills.

Source: International Adult Literacy Survey, 1994-1995.

Low skilled adults have a greater chance of being unemployed than those possessing higher literacy skills, and the duration of unemployment for those with low skills may also be greater. Those with low literacy skills are clearly at a serious disadvantage with respect to access to the labour market. This holds true in all the countries studied despite the differences in economic structures and the distribution of literacy skill.

Rewarding credentials versus skills

Educational attainment is critical at the job-entry level as employers in most countries use educational credentials as a screening device for initial hiring. Once past this critical juncture, however, the IALS data reveal interesting differences in the way different labour markets reward literacy skills. As measured by wage premiums, the independent economic returns to literacy are largest in the most open economies. In the United Kingdom and the United States, for example, the net return (or benefit) to skill is large and of the same order as the return to formal educational qualifications. In the Netherlands and Sweden, in contrast, the rewards to both education and literacy skill are comparable to the effect of labour market experience. This rather paradoxical effect may be related to the fact that literacy skill is higher on average and more uniformly distributed in these populations so that differences in skill are smaller and more difficult for employers to detect, evaluate and reward.

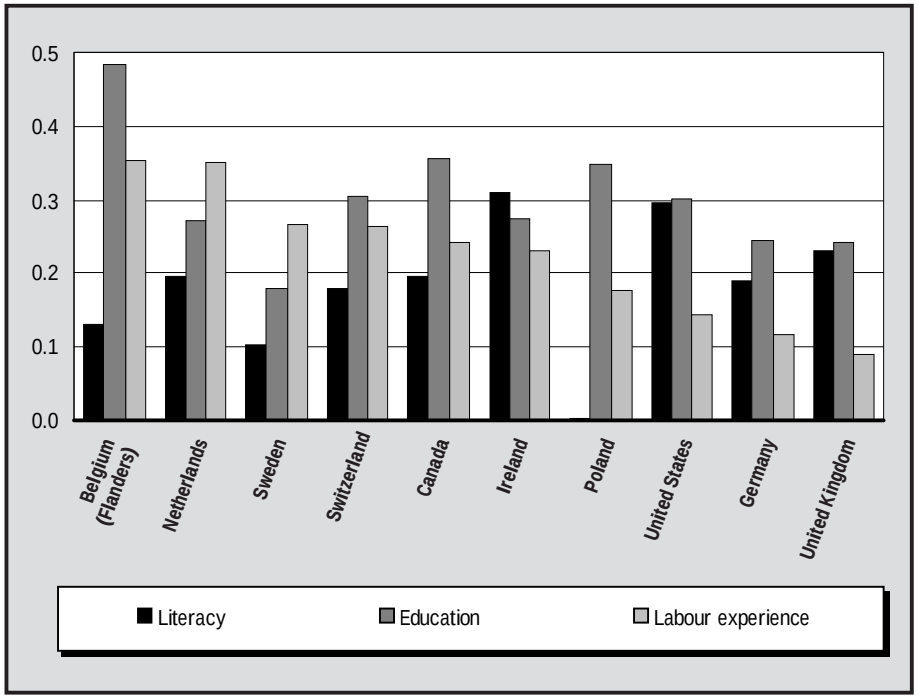
Some countries reward labour market experience and to an extent years of education; others place relatively more value on skill.

The figure shows the magnitude of the standardised effects on income of labour market experience and education, and labour market experience and literacy skills.

FIGURE 2.10

Experience and income controlling for education and literacy skills

Regression coefficients indicating the size of the effect of labour market experience on income, relative to the effects of educational attainment and literacy proficiency, 1994-1995



Countries are ranked in descending order of the net direct effect of labour market experience on income.

Source: International Adult Literacy Survey, 1994-1995.

It can be presumed that labour markets which reward experience and skill more than they pay for qualifications are more efficient —better able to match individuals with the range of jobs available. For example, the United States labour market pays a premium for literacy skill, and that country's performance on indices such as employment, mobility and turnover rates, job creation and worker productivity stands out among the OECD countries.

Wider social benefits

Low levels of literacy can be equated with lower wages and more frequent spells of unemployment, thus contributing to poverty. In fact, the IALS report indicates that a high percentage of people on public assistance and those in prisons have lower than average basic skills.

Literacy is also related to health. Persons with higher skill may maintain better health through their ability to understand and interpret health information. They may also be better able to exercise preventive health practices and detect problems so that they can be treated earlier, or make appropriate choices amongst health care options.

Literacy acquisition

The IALS study argues that raising a country's overall level of literacy requires an interdisciplinary and cross-sectoral approach to policy-making. Among factors determining literacy skills in all countries studied are a person's socio-economic background and educational attainment.

The early years of language acquisition provide a critical foundation for children's school experience and, eventually, their life chances and well-being. However, not all children develop at the same rate. Inequalities in the literacy proficiencies of youth in some countries are apparent as early as age four or five. The differences are largely attributable to the effects of socialisation within the family and within the community through schooling and other activities.

Societies that are rich in human capital (or assets), as gauged by the literacy level of their youth, achieve this wealth by enabling the children from less advantaged educational backgrounds to achieve relatively high levels of literacy.

Countries with high average literacy scores appear to have a more equitable distribution of literacy for youth of differing parental education or socio-economic levels. In countries with little socio-economic division, such as Sweden, youth with parents possessing limited formal education face only a small disadvantage, equivalent to the growth in literacy associated with roughly four years of education. In contrast, in countries with the greatest socio-economic inequalities, for example the United States, the performance gap between youth with the least and the most parental education is the equivalent of the literacy gain associated with an astounding 15 years of additional education. While described in educational terms, it must be remembered that these differences reflect more than educational processes - they are also the product of a range of social and economic forces which transform literacy in adulthood.

On average, the literacy skills of youth in some countries who completed their formal education in recent years are comparable to, or even higher than, the skills of adults who completed their schooling in the 1970's or 1980's. This said, when holding constant the socio-economic status of the parents, the range of literacy proficiency observed between and amongst the youth cohort of the countries studied differs, sometimes considerably, from country to country. For example, the proficiency of youth in Germany, whose parents achieved grade 12, is equivalent to the growth in literacy normally associated with roughly three additional years of schooling in the United States, for children whose parents had similar educational backgrounds. The literacy performance of Canadian and German youth, in this same socio-economic grouping, however, lags behind their Swedish peers by approximately the same amount.

Literacy, Economy and Society, the first report of IALS (1995), argued that literacy is not synonymous with educational attainment. This finding is mirrored in *Literacy Skills for the Knowledge Society.* For each country studied, levels of educational achievement alone cannot be considered a reliable measure of the literacy skills of a population. IALS has confirmed that a large number of adults are able to reach high levels of literacy without high levels of education. This suggests that while formal education is the most common route to skill, it is not impossible to acquire literacy skills through other means.

Adults' readiness to learn

In the majority of countries surveyed, around 40% of the population participates in adult education and training. In each country, however, there are still large groups that are not involved. Even so, adult training is on the rise influenced, in part, by the job market which has recognized the increased importance of adult education and training as an investment. In all countries, roughly half of the participants in adult education and training attend an employer-supported activity. The data shows, however, that adult education and training programmes are less likely to involve those with low literacy skills, the very people who need them the most. Given that literacy is a prerequisite for an adult's readiness to engage in learning, the lack of strong literacy skills can be a critical factor that deters these adults from participating in training. The rates of participation in adult education and training increase gradually with increasing levels of literacy skill.

OECD economies cannot rely completely on the educational system to provide skilled workers, they need to target adult education and training for low skilled adults, the majority of whom are currently employed.

Policy directions

Most change in national literacy profiles over time is driven by the difference in skill level between those entering and those retiring from the labour force. Thus, the existence of large inequalities in youth literacy in some countries is troubling as it suggests that the large differences in literacy skill currently observed among countries will continue to manifest themselves for the foreseeable future. To the extent that economic growth and income are constrained by these distributions, literacy will continue to present a significant policy challenge for many OECD economies.

Earlier IALS work demonstrated that literacy is policy sensitive. In short, policy does matter. IALS findings suggest that the coordination of policies over a wide range of different policy domains can have a significant impact, directly or indirectly, on adult literacy levels.

Approaches to developing strategies for lifelong learning need to be broad and to build on the efforts of different policy sectors and different constituents. A fruitful strategy depends as much on labour market policy as on education policy. The distinction between adult education for personal development and job-related training is dissolving; each contributes to the other—a fact that must be reflected in adult education and training policies.

Governments will have to develop policies to respond to the need for literacy programmes targeting lower-skilled workers 45 years and older, many of whom may reasonably expect to continue working for many years.

Governments may also need to consider earmarking funds for outreach activities at work and in the community, and for study assistance for courses of differing durations. In the Netherlands, for example, there has been an attempt in recent years to strengthen the adult education sector and to find new ways of combining public and private initiatives with the committed involvement of the social partners. The data suggest that public policy can reduce inequality in participation amongst those with different schooling backgrounds.

Although literacy is not the only determinant of employment levels, strong literacy rates make a labour force more productive and employable over the long run, providing incentives to attract capital investment and job creation. Continuously upgrading the skills of populations and workforces through strategies for lifelong learning should be part of the policy responses to tackle poor, low-wage jobs and persistent unemployment.

But the search for solutions requires a commitment to concerted action by a variety of players. Governments cannot do it alone; they can formulate strategies for improvments, but delivering those strategies requires partnerships. Employers, workers, national and community organizations, different levels of government, and individuals all have a role to play in encouraging strong literacy skills within a society.

What is needed in the end is the development of a culture committed to learning. That cannot be legislated, but requires changes in behaviour by individuals as well as institutions, leading toward a convergence of policy and practice which encourages lifelong learning for all.