BARE ESSENTIALS:
An Introduction to Essential Skills

ACKNOWLEDGEMENTS

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for Adult Upgrading

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cesba

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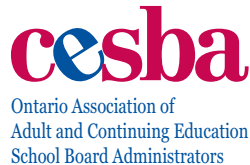
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Essentials

Essential Skills are a part of everything. If learners can develop these skills and master them, they can only be more successful at navigating through society.

Darlene King
Native Women's Resource Centre of Toronto

Bare Essentials was produced as part of a project funded by Human Resources and Social Development Canada (HRSDC) entitled **Provincial Partnerships to Promote Essential Skills: Motivation, Process and Outcomes.**

This project, developed by the College Sector Committee for Adult Upgrading (CSC), included three other provincial organizations as partners: the Ontario Association of Continuing Education School Board Administrators (CESBA); Community Literacy of Ontario (CLO); and the Ontario Native Literacy Coalition (ONLC).

The purpose of the project was to document how effective partnerships between provincial organizations are identified and developed, and to outline the challenges and benefits of developing partnerships at the provincial level. The task upon which the partners agreed to focus was the development of an Essential Skills (ES) resource for frontline practitioners. In addition to the manual, a full project report will be available on partner web sites.

Initially the project focused on a workshop to be jointly delivered in venues appropriate to each of the partners. Subsequent discussions led to the conclusion that focusing exclusively on ES workshops would limit the number of practitioners who would benefit. Participation in training is affected by time, distance and the availability of training. The partners recognized that each of their organizations had been providing ES training opportunities when and where possible, but were not able to reach all their members. This led to the idea of creating a manual that would provide a first-step introduction to ES.

Because the partners also realized that there are practitioners all along the ES learning continuum - from beginner to a higher comfort level with integrating ES into learning opportunities - a manual seemed the best

strategy to support teachers regardless of their prior experience with ES. Making the manual available through partner web sites is intended to create an "*anytime, anywhere*" opportunity to ensure all practitioners have a common base line of ES knowledge on which to build.

Bare Essentials introduces practitioners to the history of literacy in Canada leading up to the research and development of Essential Skills. Practitioners will learn about each of the nine ES and their definitions, and understand the relationship between literacy and ES. ES profiles are introduced, strategies for using them with learners are included, and sources of additional information, tools, materials and resources are identified.
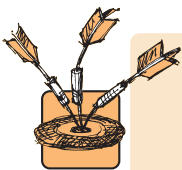
TIP:
Notice that the term Essential Skills is capitalized. This means that the Essential Skills being referenced are the nine skills identified by HRSDC's Essential Skills Research Project. Similarly, the nine skills are capitalized (e.g. Reading Text) to identify that they are one of HRSDC's Essential Skills.

The purpose of this first chapter is to provide the rationale that led the four provincial organizations to believe that *all* Ontario practitioners should have access to common and consistent ES information to support learner success. This introduction to ES will help practitioners identify existing ES already resident in program curriculum, activities and assignments. The research findings provide valid and tangible reasons to integrate ES into programming to support learners.

Two international literacy surveys - the 1994 International Adult Literacy Survey (IALS) and 10 years later, the International Adult Literacy and Life Skills Survey (IALLS) - as well as the Essential Skills Research Project (ESRP) - led to subsequent Canadian and international research to identify the impact, applications and value of ES. These findings have encouraged individuals, governments, employers, educators and practitioners to embrace ES as an additional tool to support the growth and development of individuals, communities and the economy. Awareness of the research findings supports practitioners in helping students understand the skills they already possess, why they are learning specific skills, and to what outcomes these skills can lead.

Research Findings - Essential Skills Impact

The Movement for Canadian Literacy has published several fact sheets identifying the issues connected to low literacy. Consider the quotes from these fact sheets:

- Adults with low literacy are more likely to be unemployed, work in lower paying jobs and live in low-income households.

- Many different sources confirm that low literacy has a negative effect on all aspects of health, including overall levels of life expectancy, accidents and a wide range of diseases such as diabetes, cardiovascular disease and cancer.

- Citizenship is about both rights and responsibilities. Unfortunately, for almost half of all adult Canadians, poor literacy acts as a barrier to accessing those rights and as an obstacle to meeting those responsibilities. Less literate people are disenfranchised from power, control, and decision-making. As such they may be skeptical and may not value or respect the system in which they feel like outsiders.

- People from poor families as well as the long-term unemployed, seniors, native people, prisoners, people with disabilities, and racial and cultural minorities all have higher rates of both illiteracy and poverty. They have fewer choices in jobs, education, housing and other things we need to have full lives.

- People with low literacy skills are more likely to lose their jobs and less likely to find new employment. The unemployment rate for people at the lowest literacy level is 26%, compared with 4% for those at the highest literacy levels. These figures don't include "discouraged workers" who are no longer actively looking for work.

An examination of the research findings associated with these quotes can help practitioners and learners understand and talk about why learning is important and what can be gained from learning. This understanding provides the motivation to continue to learn.

Citizenship

Helping learners increase their Essential Skills impacts their ability to participate fully in society.

The Office of Literacy and Essential Skills (OLES) points to the relationship between literacy, ES levels and citizenship.

Health

Helping learners increase their Essential Skills impacts health.

The Canadian Public Health Association publication **A Vision for a Health Literate Canada: Report of the Expert Panel on Health Literacy** suggests data from the 2003 IALLS provides the best available information about the extent and distribution of health literacy in Canada. This measure of health literacy focuses on people's ability to use health-related materials to accomplish health tasks. The report includes a summary of Canadian literacy levels because literacy is fundamental to health literacy and because the only national statistics on health literacy in Canada available to the Expert Panel were extracted from IALSS data (*Council for Canadian Learning (CCL), 2007a; CCL, 2008*). For details about the development of the IALSS-based health literacy scale, see CCL, 2007a.

Health Literacy by Age Group, Canada (2003 IALS)
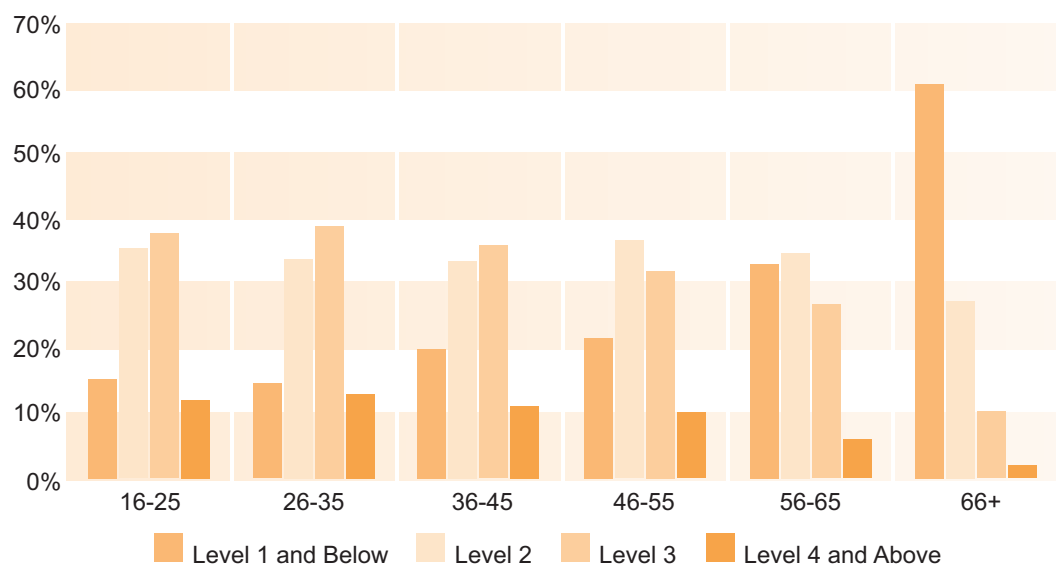
Source: Canadian Council on Learning. 2007b

Canadians with the lowest health literacy scores are 2.5 times as likely to see themselves as being in fair or poor health as those with skills at level 4 or 5.

Earnings

Helping learners increase their Essential Skills impacts earnings.

Research indicates that 28% of what Canadians earn is directly attributable to their Essential Skills. No other single factor contributes as much to a person's income. Education and credentials are next at 24%.

Essential Skills and Earnings
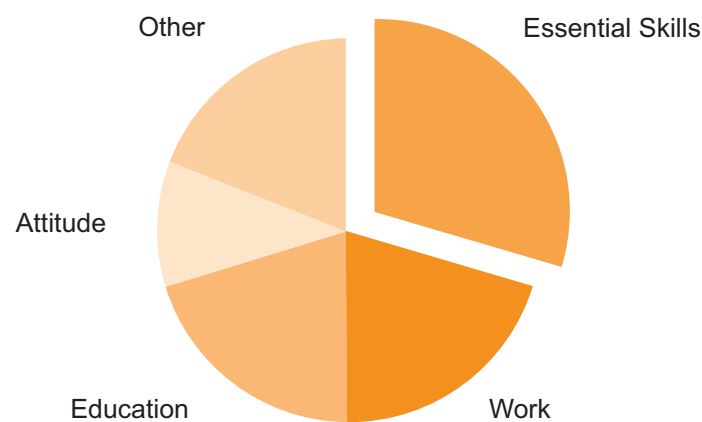
We often hear that employers just want workers with a positive attitude, but that isn't enough. A 25-point increase in the average literacy score has an impact equivalent to an extra year of schooling (*Literacy and the Labour Market: The Generation of Literacy and Its Impact on Earnings for Native Born Canadians, 2007*).

Employment

Helping learners increase their Essential Skills impacts employment.

> *Essential Skills are a common thread that all programs are able to use to support clients or learners. Incorporating ES into both Job Connect and the Literacy and Basic Skills program, for example, means we are able to help our clients improve their Essential Skills.*
>
> *Michelle Forrest, Job Connect, Durham College*

Research shows that an individual's skill levels impacts unemployment. The following graph illustrates the probabilities of unemployed adults aged 16 to 65 exiting unemployment over a 52-week period, by low (Levels 1 and 2) and medium to high (Levels 3 and 4/5) skills, document scale.

Probability of Exiting Unemployment by Skills Levels

Level 1 and 2   Level 3 and 4/5   Source: Adult Literacy and Life Skills Survey. 2003
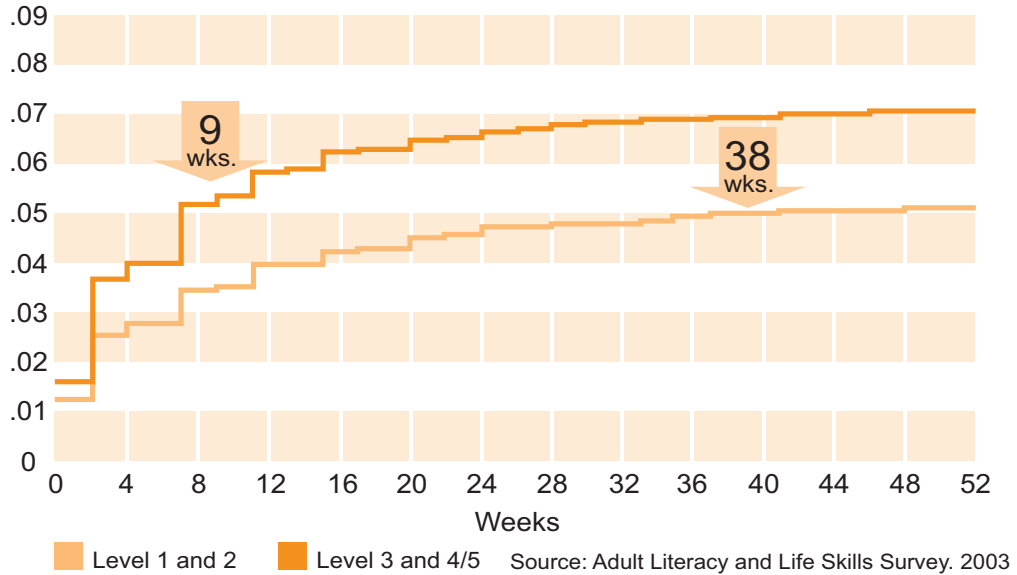
Those functioning at level 3 and 4/5 are more likely to re-enter the workforce in a shorter period of time.

More than two-thirds of all new jobs that will be created to 2015 are expected to be in management or in occupations usually requiring postsecondary education. In addition, jobs for which no postsecondary education is necessary also are increasingly requiring a minimum of ES Level 3 in Reading Text, Document Use, and Numeracy. These include jobs such as cleaners, cooks and security guards.

Workplace Demands for Essential Skills

Reading Text   Document Use   Numeracy

Source: Matching Canadians' Literacy Attainment to Actual Occupational Requirements, May 2001
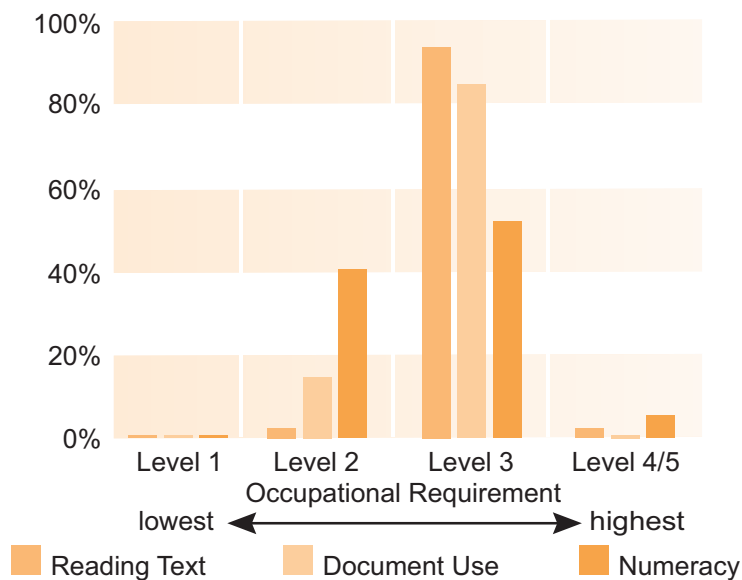
Safety

Helping learners increase their Essential Skills affects safety at home and at work.

Do you know what these symbols mean? Look for them on labels on household products. Learn what they mean.

CORROSIVE The product can burn your skin or eyes. If swallowed, it will damage your throat and stomach.	**FLAMMABLE** The product or its fumes will catch fire easily if it is near heat, flames or sparks. Rags used with this product may begin to burn on their own.
EXPLOSIVE The container can explode if heated or punctured. Flying pieces of metal or plastic from the container can cause serious injury, especially to eyes.	**POISON** If you swallow, lick, or in some cases, breathe in the chemical, you could become very sick or die.

Source: Health Canada   www.hc-sc.gc.ca

Research conducted by the Canadian Trucking Human Resources Council (CTHRC) shows that workers with reading skills at ES Level 1 are 176% more likely to be involved in a workplace accident than those at ES skills levels 3 to 5. The full report, **Essential Skills as a Predictor of Safety Performance Among CPPI-Certified Petroleum Professional Drivers in Alberta** can be downloaded at http://www.cthrc.com.

GDP and Productivity

Helping learners increase their Essential Skills can impact standard of living and the country's economic health.

Wikipedia defines Gross Domestic Product (GDP) as the total market value of all final goods and services produced within a country in a given period of time (usually a calendar year).

The argument in favor of using GDP as a measure of particular types of economic activity within a country is not that it is a good indicator of standard of living, but rather (all other things being equal) the standard of living tends to increase when GDP per capita increases. This makes GDP a proxy for standard of living, rather than a direct measure of it. GDP per capita can also be seen as a proxy of labor productivity.

As the productivity of the workers increases, employers must compete for them by paying higher wages. Conversely, if productivity is low, then wages must be low, or the businesses will not be able to make a profit.

Research indicates that a 1% gain (five points on the IALS 500-point scale) in ES scores would increase productivity by 2.5% on a per worker basis, and increase Canada's GDP by 1.5%. This gain would be realized year after year. A 1.5% increase in GDP represents $18 billion

Source:Adult Literacy and Life Skills Survey, 2003.

Summary

Effective instruction involves motivating learners. It is a key adult learning principle. Motivated adults learn more effectively and quickly. Essential Skills enhance learner motivation and make learning more relevant as learners apply their skills to carry out real-life tasks in a meaningful context. Research related to IALS and IALLS provides a strong argument for integrating Essential Skills information and approaches into Ontario's learning environments.

Additional Resources

There are several excellent repositories of Canadian adult learning, literacy and Essential Skills research available to readers for further reference about the research and findings used in this chapter.

Human Resources and Social Development Canada

Publications – International Adult Literacy Survey – Research Papers at http://www.hrsdc.gc.ca/en/hip/lld/nls/Publications/D/publicationD.shtml

Government Depository Services Program

Enter Adult Literacy in the search bar at

http://dsp-psd.pwgsc.gc.ca/Collection/Statcan/index-e.html

Statistics Canada

Enter International Adult Literacy Survey in the search bar at http://www.statcan.ca/olcbrowse/english/clf/query.html?style=englisholc&la=en

Canadian Council on Learning

Reports & Data, http://www.ccl-cca.ca

Many of the publications found on the websites above also are available for download through the NALD library at http://nald.ca.

Literacy and Essential Skills:
The Canadian Experience

Essential Skills can become a national system for talking about careers and the skills necessary for them.
Wayne Miedema, Waterloo Region District School Board

As early as the 1970s, Canada and other leading nations began to recognize the impact that literacy has on a country's social and economic well-being. Today, information-based, technology-driven economies are forcing nations to provide the necessary tools to increase the involvement and contribution of all of its citizens.

The large body of adult literacy research that began in the 1980s has helped to establish a pathway for Canadians whose literacy challenges have created obstacles to the development of their full potential at home, work, school, and in the community. National and international research studies have identified a set of skills necessary, not only for personal success, but for the success of a nation's global performance.

The meaning of "literacy" has evolved from pre-Confederation days when, as defined by the 1861 census of Upper and Lower Canada, our first measure of literacy was the ability to read and write. The 1941 census introduced the category of highest level of elementary or secondary schooling. Until the mid-1980s, the number of years of education was the marker used to measure the literacy of the Canadian population. People who completed Grade 9 were considered literate. However, in the last few decades our understanding of literacy has greatly expanded. Individuals are no longer viewed as literate or illiterate. Our concept of literacy today is seen as a continuum of skills ranging from very limited to very high.[1]

Beginning in the 1960s, there was a growing awareness that many Canadians lacked the skills necessary for employment or retraining. This decade was characterized by idealism and social consciousness. A "war on poverty" was waged with expanded federal funding for technical and vocational education.

The *Adult Occupational Training Act*, passed in 1967, focused on unemployed and underemployed workers, and on short-term retraining.

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1   *Human Resources and Social Development Canada.* **Background information on the International Adult Literacy Survey (IALS)**, *2003*

This led to the development of the **Canada Newstart Program**, created to promote "experimentation in methods which would motivate and train adults who were educationally disadvantaged." The program revealed that a number of Canadian adults were not educated enough to qualify for retraining, putting the need for adult basic education in the public eye[2].

The 1970s showed that despite efforts to provide skills training or retraining to adults through programs such as federal **Basic Training and Skills Development (BTSD)** and **Basic Job Readiness Training (BJRT)**, established goals were not met. Increasingly, a concern for literacy as a social justice issue was dominant among activists[3].

Adult Literacy in the Seventies was the first national conference on literacy. Held in Ottawa in 1977, it was organized by a small group of literacy activists under the rubric of **The Canadian Project for Adult Basic and Literacy Education**. This conference led to the creation of the Movement for Canadian Literacy (MCL)[4].

MCL is a coalition of provincial and territorial coalitions. Since 1978, it has been working to:

- Inform the federal government and the public about issues related to adult literacy in Canada;

- Provide a national forum for provincial and territorial literacy organizations to work together to ensure that every Canadian has access to quality literacy education;

- Strengthen the adult student/learner voice in Canada;

- Support the development of a strong movement of people and organizations involved with adult literacy education[5.]

The creation of the MCL contributed to increased awareness on the part of the federal and provincial governments that literacy was an important issue. Other activities in the early 1980s that added to the pressure for government action on literacy included the establishment in 1981 of Laubach Literacy of Canada, a national non-profit, charitable organization for raising literacy levels, and the 1983 release of an occasional paper by Audrey Thomas: **Adult Illiteracy in Canada – a Challenge**. In that paper,

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2   Sholet, Linda. **Adult Learning and Literacy in Canada**, *Annual Review of Adult Learning and Literacy,* Vol. 2, 2001.

3   Sholet, Linda. **Adult Learning and Literacy in Canada**, *Annual Review of Adult Learning and Literacy*, Vol. 2, 2001**.**

4   Thomas, Audrey. **Adult Illiteracy in Canada – a Challenge. Canadian** Commission for UNESCO, Ottawa, 1983.

5   Movement for Canadian Literacy, 2007 (www.literacy.ca).

Thomas characterizes the Canadian situation as one of undereducated adults in the 1980s.

The federal government responded with a pledge to "work with the provinces to develop resources to ensure that Canadians have access to the literacy skills that are the prerequisite for participation in our advanced economy (*Speech from the Throne, October 1, 1986*).

In 1986, the Southam Newspaper Group commissioned the first survey of adult literacy in Canada. This marked the first time in Canada that literacy was tested using real tasks rather than by simply extrapolating literacy levels from years of schooling.

Literacy was defined as the ability to read and write in either of Canada's two official languages. Participants were interviewed face-to-face. An average interview took 80 minutes and involved two parts — a background and activity questionnaire followed by a test of reading, writing and numbers skills using 60 items based on everyday life[6].

> *An exclusive nationwide survey in 1987 disclosed that five million Canadians cannot read, write or use numbers well enough to meet the literacy demands of today's society – and one-third are high school graduates. Half of these functional illiterates have been left out of past official estimates of illiteracy because they reached Grade 9 or better, the federal government's arbitrary definition of being literate[7].*

Results of the Southam survey shocked Canadians.

The survey showed that educational attainment alone was not a reliable measure of literacy and brought the issue to greater public attention. In response, the federal government created the National Literacy Secretariat in 1987 to "promote literacy as an essential component of a learning society and to make Canada's social, economic and political life more accessible to people with weak literacy skills. Activities are undertaken in partnership with the provinces, territories, non-governmental organizations and business and labour organizations[8]".

6   Calamai, P. **Broken Words. Why Five Million Canadians Are Illiterate**. **The Southam Literacy Report: A Special Southam Survey**, 1987.

7   Calamai, P. **Broken Words. Why Five Million Canadians Are Illiterate**. **The Southam Literacy Report: A Special Southam Survey,** 1987.

8   Human Resources and Social Development Canada (HRSDC), 2005 (www.hrsdc.gc.ca).

The National Literacy Secretariat commissioned Statistics Canada to conduct a detailed literacy assessment of the adult population in the fall of 1989. The principal objective of the *Survey of Literacy Skills Used in Daily Activities (LSUDA)* was to assess the reading, writing, and numeracy skills of Canada's adult population in each official language.

The definition of literacy adopted for the survey was the "information processing skills necessary to use the printed material commonly encountered at work, at home, and in the community".

The study concluded that "the skills underlying literacy cannot be separated from the context in which they must be applied". That is, the specific literacy skills individuals require in their everyday lives are largely dependent on their occupation, household activities, and level of participation in the community.

The study also recognized that literacy skills require a context for their application. Consequently, a broad range of tasks was included that was characteristic of the literacy demands that people encounter in their daily lives. It also was recognized that the skill required in a given situation depends on the type of material to which it must be applied. Thus, a further component of literacy materials was built into the proposed framework of this study. Materials refer to the various forms and formats in which information is displayed[9].

The LSUDA results showed that a majority of Canadian adults (62%) have reading and numeracy skills that are sufficiently well-developed to enable them to function capably at work, at home and in the community. Another 22% are more limited, but are still able to function in a less demanding environment in which the materials they must read or calculate are familiar. A significant minority of Canadian adults struggle with basic literacy tasks. Sixteen percent have limited reading skills and cannot face most of the demands encountered daily.

Unlike the Southam survey, LSUDA introduced the concept that functional literacy skills do not fall neatly into categories, but rather form a continuum. At the same time, certain points along the continuum are worthy of particular attention because they reflect significant differences in literacy abilities. The literacy levels used by LSUDA are simply points along the continuum that should be useful in identifying the types of programs and services needed to deal with Canada's literacy problem[10].

9   Montigny, G. et al. **Adult Literacy in Canada: Results of a National Study**, *Statistics Canada, 1991.*

10 G. Montigny and S. Jones. **Overview of Literacy Skills in Canada**, *Perspectives on Labour and Income,* Winter 1990 (Vo. 2, No. 4) Article No. 3.

The LSUDA study spawned discussions about the greater economic costs and labour market implications of low-level literacy. O'Neill (1991) identified the economic costs as:

> Below average income levels for individuals because the skill levels required for the jobs they fill are below average, and the range of jobs open to them are narrower. These factors also lead to above average unemployment and reduced labour market mobility (occupational and geographic); productivity losses, errors in inputs and processes, reduced product quality, problems in job reassignment, health and safety problems, higher job turnover rates and absenteeism on the part of employees; economic costs to society from lost output due to lower productivity, higher prices for goods and services due to increased production costs, and higher levels of income transfers to the unemployed or underemployed because of skill deficiencies.

Difficulties with literacy and numeracy also can translate into higher costs for training programs supported by the public purse[11].

By the 1990s, there was an increased international recognition of the role literacy plays in the economic performance of industrialized nations.

The *International Adult Literacy Survey (IALS)* was developed by Statistics Canada and the Organization for Cooperation and Economic Development (OECD) in 1994.

The survey was initially administered in seven countries — Germany, the Netherlands, Poland, Sweden, Switzerland, Canada, and the United States. Two more rounds of data were collected in 1996 and 1998 in 23 participating countries. The aim of this first, large-scale comparative study of adult literacy was not to rank countries from the most literate to the least literate; rather, its aim was to compare, across cultures and languages, literacy performance among people with a wide range of abilities[12]. Today the survey still offers the world's only source of comparative data on participation in adult education and training.

Literacy was defined in IALS as "the ability to understand and employ printed information in daily activities, at home, at work and in the community – to achieve one's goals, and to develop one's knowledge and potential[13]".

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11 T.O'Neill and A. Sharpe. **Functional Illiteracy: Economic Costs and Labour Market Implications**, in ***Adult Literacy in Canada: Results of a National Study***, *Statistics Canada, 1991.*

12 *HRSDC.* **Background information on the International Adult Literacy Survey (IALS), 2003.**

13 *HRSDC.* **Background information on the International Adult Literacy Survey (IALS), 2003.**

IALS assessed three domains of literacy.

> **Prose literacy**
> The ability to understand and use information from texts such as editorials, news stories, poems and fiction.
>
> **Document literacy**
> The ability to locate and use information from documents such as job applications, payroll forms, transportation schedules, maps, tables and graphs.
>
> **Quantitative literacy**
> The ability to perform arithmetic functions such as balancing a chequebook, calculating a tip, or completing an order form.

For each domain, literacy proficiency was measured on a scale ranging from 0 to 500. The scale was subdivided into five broad literacy levels: Level 1 (0-225); Level 2 (226-275); Level 3 (276 to 325); Level 4 (326-375); Level 5 (376 to 500). The Essential Skills scale is based on the IALS scale.

Of the five levels of literacy, Level 3 is regarded as the minimum level of competence required to cope with the complex demands of a knowledge society in the 21st Century. In Canada, IALS estimated that 42% of adults have skills below Level 3[14].   The results also demonstrated a strong, plausible link between literacy and a country's economic potential[15].

Some of the key findings of IALS were that:

Important differences in literacy skill exist, both within and among countries. These differences, which are much larger than those observed in studies of school literacy... substantiate the basic hypothesis of IALS that existing skill differences are large enough to matter both socially and economically.

In North America and several European countries, scores on the quantitative scale show the strongest correlation with income. There is a large 'wage premium' in Canada, Ireland, the United Kingdom and the United States for those whose literacy proficiency is at the highest level (level 4/5).

Literacy levels are clearly linked to occupations and industries — some occupations call for high-level skills, others intermediate skills.

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14 HRSDC. Council of the Federation, Government Initiatives, **Promoting Literacy Best Practices**, 2004.

15 Statistics Canada. **Focus on Literacy: Framing the Debate – The Evolution of Literacy**, 2007

The relationship between literacy proficiency and educational attainment is complex. Although the association is strong, there are some surprising exceptions. For example, many adults manage to attain relatively high levels of literacy proficiency despite low levels of education. Conversely, there are some who have low literacy skills despite a high level of education. This finding proves another of IALS hypotheses, that educational attainment is a poor proxy for real skill. Given this fact, objective skill testing is worth the investment.

Low skills are found not just among marginalized groups, but among significant proportions of adult populations in the countries surveyed. The data show that adult education and training programs are less likely to reach those who need them most – people with low levels of skill.

Literacy skills, like muscles, are maintained and strengthened through regular use. While schooling provides an essential foundation, the evidence suggests that only by using literacy skills in daily activities – both at home and at work – will higher levels of performance be attained[16].

In response to the international body of research linking labour market success to a set of teachable, transferable, and measurable skills, Human Resources and Skills Development Canada (HRSDC) launched a national research study in 1994. Building on the international studies, the Essential Skills Research Project (ESRP) identified and validated nine Essential Skills (Reading Text, Document Use, Numeracy, Writing, Oral Communication, Working with Others, Thinking Skills, Computer Use and Continuous Learning)[17].

All these skills are used, in different forms and at different levels of complexity, in virtually all occupations in Canada. These skills also increase an individual's capacity to learn higher-order skills such as technical or management skills[18].

To better understand the importance and relevance of ES and how they relate to different occupations, the ESRP researchers created occupational profiles for nearly 200 Canadian occupations. The occupations were identified using the National Occupational Classification (NOC).

The ESRP focused on occupations requiring a secondary school diploma or less and on-the-job training. Each of the occupational profiles shows

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16 *Statistics Canada. 89-588-XIE,* **International Adult Literacy Survey Database***, About the survey, 2003.*

17 *HRSDC. Essential Skills (www.hrsdc-rhdcc.gc.ca/essentialskills), 2006.*

18 *HRSDC.* **About Essential Skills** *in Call for Proposals, Essential Skills Initiative, 2007.*

how each of the nine Essential Skills is used in a specific occupation and at what levels of complexity. This research is the basis for the Essential Skills Profiles, which will be discussed in Chapter 4. The ESRP also contributed to the development of the *Authentic Workplace Materials* section of the Essential Skills website, where samples of authentic workplace materials (forms, charts, tables, etc.) can be found.

In the spring of 2003, Human Resources Partnerships and the National Literacy Secretariat launched the **Essential Skills and Workplace Literacy Initiative**. Building on ES research, its goal is to enhance the skill levels of Canadians entering or already in the workforce. The initiative seeks to increase awareness and understanding of ES, support the development of tools and applications, build on existing research, and work with other Government of Canada programs[19].

Also that year, the Canadian government was motivated by the results of the IALS to continue to work within the OECD framework on the *Adult Literacy and Life Skills Survey (ALLS). The International Adult Literacy and Skills Survey (IALSS)* is a companion piece to the international comparative data. IALSS is the Canadian report with details arising from the ALLS survey that shows proficiency levels from each province and territory.

IALSS measured proficiency in four domains: prose literacy; document literacy; numeracy; and problem-solving. Results of ALLS showed that 42% of the working age population in Canada has literacy skills below Level 3 (the international standard of literacy needed to function effectively in a modern society and economy).

Two subsequent international surveys conducted from 1994-2003 showed that 42% figure to be unchanged, but the number of working-age Canadians with low skills has increased to nine million from eight million due to population growth[20].

The international studies — and the startling figures they showed — were sufficiently significant for a call to action. In November 2005, the Minister of State for Human Resources Development appointed a Ministerial Advisory Committee on Literacy and Essential Skills with the mandate to offer the Minister of State advice in forming the development of a comprehensive literacy and essential skills strategy. That strategy is included in the report **Towards a Fully Literate Canada: Achieving National Goals through a Comprehensive Pan-Canadian Literacy Strategy**.

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19 *HRSDC. Essential Skills (www.hrsdc-rhdcc.gc.ca/essentialskills), 2006.*

20 ***Towards a Fully Literate Canada: Achieving National Goals through a Comprehensive Pan-Canadian Literacy Strategy.*** *A Report Submitted by the Advisory Committee on Literacy and Essential Skills to the Minister of State for Human Resources Development, 2000*

The committee recommended that the Government of Canada adopt the following vision statement for its strategy:

All Canadians have the right to develop the literacy and essential skills they need in order to participate fully in our social, cultural, economic, and political life. Every person must have an equal opportunity to acquire, develop, maintain, and enhance their literacy skills regardless of their circumstances. Literacy is at the heart of learning. A commitment to learning throughout life leads to a society characterized by literate, healthy and productive individuals, families, communities, and workplaces[21].

The federal government created the Office of Literacy and Essential Skills (OLES) in April 2007 in response to the conclusions and recommendations in the report. OLES' mandate is to influence the policies and activities of others, and to leverage funding to improve opportunities for adults.

OLES focuses on three areas of activity

1. Providing practical tools and instruments that support the needs of employers, practitioners and learners in integrating literacy and ES into programs;

2. Building a national knowledge base of best practices, models, and applied research;

3. Strengthening partnerships and networks.

OLES is supporting the federal government's commitment by funding literacy and ES projects across the country. This project— ***Provincial Partnerships to Promote Essential Skills: Motivation, Process and Outcomes*** — is a benefactor of the new national office.

The goals of this project support the main goals of OLES in that the resulting training manual will facilitate the integration of Essential Skills into LBS programs and will be particularly helpful for those learners who are preparing to enter the workplace; development of the manual and implementation of ES training, supported by the Essential Skills Training Manual, will contribute to the national knowledge of best practices and models; and the project will demonstrate successful partnerships in the literacy field in Ontario through successful cross-sector cooperation.

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21 ***Towards a Fully Literate Canada: Achieving National Goals through a Comprehensive Pan-Canadian Literacy Strategy.*** *A Report Submitted by the Advisory Committee on Literacy and Essential Skills to the Minister of State for Human Resources Development, 2000.*

"Canada's success, and the success of individual Canadians, relies on our economic productivity. And our productivity, in turn, is increasingly dependent on skills and learning[22]". To that end, the federal government is committed to helping Canadians "be the best-trained, most highly skilled workers in the world; to build a labour market that is flexible and efficient; and to respond to the needs of employers to make Canadian workplaces more productive and innovative[23]".

The work that is being developed, implemented and shared nationally by literacy and Essential Skills stakeholders will contribute to the realization of that vision. This manual is a step leading toward that vision.

An Aboriginal Perspective

To lend an Aboriginal perspective to this chapter, it is helpful to think in terms of worldviews[24].

Within pre-colonization tradition, Aboriginal knowledge and learning was deeply interwoven into a way of life. It was an orientation to life based on strong spiritual beliefs, where the self was constructed within relationships — the self in relation to the family, the community, the world, the universe, and ultimately, the Creator. The sources of knowledge and learning were nature, the Elders, observation, experience, and inner self-reflection. It was a holistic approach to the world, aimed at keeping the mental, spiritual, emotional, and physical in balance. Significantly, learning and knowledge were communicated through oral language. The construction of that language reflected the spiritual and natural world in which Aboriginal peoples lived and learned to survive.

The earlier material in this chapter is an orientation to literacy and learning from a Euro-Canadian worldview point. Education and learning in a Euro-Canadian perspective has traditionally placed an emphasis on reading and writing. This separation of learning into subjects has been

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22 HRSDC. **Workplace Skills Strategy** (www.hrsdc.gc.ca), 2005.

23 Ibid.

24 The Oxford English Dictionary (OED). In the OED, **worldview** is defined as "the overall perspective from which one sees and interprets the world. A collection of beliefs about life and the universe held by an individual or a group".

reinforced through a systematized structure in the form of grades. Definitions of literacy have been constructed on this European model of education. With respect to adult literacy, learning and literacy have been recently placed alongside employment in support of a nation's strong economic growth.

Jagged Worldviews Colliding[25]

This Euro-Canadian history of literacy, indeed, a whole way of life, was imposed on Aboriginal peoples with colonization.

Shortly after Confederation, the Canadian government imposed policies intended to assimilate Aboriginal peoples into the European way of thinking. This was mainly played out against the enactment of *The Indian Act*, and within that, the residential schools system.

> *Our Indian legislation generally rests on the principle that the Aborigines are to be kept in a condition of tutelage and treated as wards or children of the state... It is clearly our wisdom and our duty, through education and other means, to prepare him for a higher civilization by encouraging him to assume the privileges and responsibilities of full citizenship.*

> Annual Report of the Department of the Interior (1876)

The Indian Act

The *Indian Act of Canada* was a law designed to assimilate Aboriginal peoples into the Canadian mainstream culture and economy. The *Act* was first introduced in 1878 and allowed the Canadian government almost total control over how Aboriginal people lived and interacted with non-Aboriginals. At the same time, it gave the government a special responsibility for the health and education of Aboriginal people, and for the land inhabited by them.

The *Act* was greatly changed in 1951. It has continued to be amended and remains the focus of much debate between Aboriginals and the Government of Canada. While more recent changes allow less federal involvement, the government still exercises a significant degree of control over the lives of Aboriginal people. The *Act* "defines who is an Indian and regulates band membership and government, taxation, lands and resources, money management, wills and estates, and **education**[26] Government of Canada website. (www.dsp-psd.pwgsc.gc.ca/Collection-R/LoPBdP/EB/prb9923-e.html)

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25 *Leroy Little Bear.* **Jagged Worldviews Colliding** *in **Reclaiming Indigenous Voice and Vision**, Marie Battiste, editor. Vancouver. UBC Press, 2000, pg. 77. Leroy Little Bear coined the phrase "jagged worldviews colliding" to describe the encounter of Aboriginal philosophies and positivist scientific thought.*

26 *Government of Canada website. www.dsp-psd.pwgsc.gc.ca/Collection-R/LoPBdP/EB/prb9923-e.html*

Residential Schools

The federal government became involved with the development and administration of the residential school system in 1874 to meet its *Indian Act* obligation to provide an education to Aboriginal people. The residential school system attempted to ensure that Aboriginal people would conform to the European worldview.

At its most active period, around 1930, the residential school system was comprised of 80 institutions. The Roman Catholics operated three-fifths of the schools, the Anglicans one-quarter, and the Methodists and Presbyterians the remainder. (Most of the Presbyterian institutions became United Church schools in 1925 with the formation of the United Church of Canada.)

Native languages were often forbidden in residential schools. A European religious system of education strictly imposed the European worldview. Aboriginal spiritual practices were not only banned, but often denigrated. The government remained in control of the residential schools until the mid-1970s when, for the most part, they ceased operation.

The *Royal Commission on Aboriginal Peoples* and other studies tell of the tragic legacy left by the residential school system. Former students and their communities continue to deal with issues such as physical and sexual abuse, family violence, and drug and alcohol abuse. The system served to place Aboriginal people among the most vulnerable in Canadian society. The effects remain today.

In comparison to non-Aboriginal Canadians, Aboriginal people have a lower life expectancy, are ill more frequently, experience more family violence and alcohol abuse problems, have fewer high school graduates and few young people going onto college or university, spend more time in jail and are more likely to be unemployed. In addition, Aboriginal homes are more likely to be flimsy, leaky, and overcrowded and water and sanitation systems in Aboriginal communities are more likely to be inadequate [27]

Besides being stigmatized and marginalized, the traditional knowledge of Aboriginal people has been eroded along with their many native languages. A whole way of life has been devastated, a way of life that was a source of a sense of self-worth, purpose, and direction for Aboriginal people.

The marginalization of Aboriginal people in Canadian society was further affected by a lack of strong, mainstream literacy skills. Aboriginal people have struggled to articulate their situation because they have had limited access to supports required to obtain the language skills necessary to lobby for change[28].

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27 *The devastating effect on Aboriginal people, and the responsibility of the Government of Canada for the residential school system, has now been acknowledged by the government, and the government has issued a formal statement of apology http:// www.ainc-inac.gc.ca/gs/schl_e.html.*

28 *Prime Minister Stephen Harper also apologized on June 11, 2008 (see www.cbc.ca.)*

Moving Towards Healing and Self-Determination

A turning point in literacy and the involvement of Aboriginal people in addressing literacy issues, both national and provincially, started to develop and become evident in the 1980s.

Primarily as a result of a strong reaction to the 1969 *White Paper on Indian Policy*, Aboriginal people began to come together and make demands on the government to honour the treaties and rights of Aboriginal and Métis people.

Deferring to legal procedures, Aboriginal people lobbied for their continuity as peoples/nations within Canada. Through a persistent effort, gains have been made.

Agencies and policies related to literacy, and specifically adult literacy, in Ontario that have assisted in establishing the significance and value of an Aboriginal worldview include:

- The establishment of the First Nations Technical Institute;

- Some development and support of First Nations languages, since research has proven that culture and language are deeply interwoven;

- The establishment of the Ontario Native Literacy Coalition;

- The establishment of the Ningwakwe Learning Press, a native publishing house;

- The founding of the National Indigenous Literacy Association (NILA), a national Aboriginal literacy organization;

- Courses in Native Studies at universities, colleges and other mainstream institutions;

- Funding for Aboriginal research and projects;

- Support of Aboriginal published material.

Other developments — including partnerships such as this one — continue and embrace and encourage an Aboriginal voice in how literacy is defined and applied.

Adult Native literacy practitioners are asked to address many issues in their programming, e.g., reclamation of First Nations traditional knowledge and language, re-establishment of strong parenting skills felt to be lost with the residential school system, development of negotiation skills for land claim resolutions, attention to methods and practices for healing and the dynamic skills required in self-determination, the provision of support for employment and ES, and the needs and demands of the broader society.

This project addresses one aspect of the many issues that culture-based programs currently face. ES can help practitioners help learners, not just with realizing career and employment goals, but in offering learning opportunities that help learners understand the value and application of ES to success in daily life and its importance in making informed, self-determined choices.

In this way, it is intended that practitioners find ways to include ES in their already-existing, culturally-based programming.

In turn, it is hoped that the inclusion of an Aboriginal voice in non-Aboriginal programs will expand the definitions and use of literacy, not just "to help Canadians be the best-trained, most highly skilled workers in the world", but also to increase a sense of self-worth, community health and national well-being.

> *All Canadians have the right to develop the literacy and essential skills they need in order to participate fully in our social, cultural, economic, and political life. Every person must have an equal opportunity to acquire, develop, maintain and enhance their literacy skills regardless of their circumstances. Literacy is at the heart of learning. A commitment to learning throughout life leads to a society characterized by literate, healthy and productive individuals, families, communities and workplaces.*
>
> *Advisory Committee on Literacy and Essential Skills*

Summary

In the past 20 years, Canadians have increased their understanding of literacy and are more aware of the impact literacy has on individuals, communities and the country at large. Through national and international research we have identified, and are integrating into many aspects of Canadian life, the nine Essential Skills deemed necessary for full participation in our society.

Historically, however, the Euro-Canadian view of literacy, learning and knowledge has clashed with the oral tradition of Aboriginal people.

After more than a century of an imposed way of life dictated by the 1878 *Indian Act of Canada*, Aboriginal people now have a greater voice in how literacy is defined and applied.

Today, the federal government is committed to supporting the development of literacy and Essential Skills programs to ensure **all** Canadians have the skills necessary for full participation in all aspects of our society.

Essential Skills Chronology

Royal Proclamation
1763

Residential School System developed
1874

The Indian Act of Canada
1878

White Paper on Indian Policy
1969

1861
Literacy defined as ability to read and write

1941
Literacy defined as completion of Grade 9

1960s
Decade of idealism; war on poverty

1967
Adult Occupational Training Act; Canada NewStart Program

Residential Schools cease operation
Mid 1970's

"Existing Aboriginal and treaty rights" were recognized in the Constitution Act
1982

1970's
Growing concerns about literacy as a social justice issue

1977
First national conference on literacy

1978
Creation of Movement for Canadian Literacy

1981
Establishment of Laubach Literacy of Canada

1983
Publication of Adult Illiteracy in Canada – A Challenge

Ontario Nation Literacy Coalition (ONLC) established
1988

Creation of First Nations Technical Institute
1995

1987
Southam Newspaper Group commissions first survey of adult literacy in Canada results shock Canadians

1987
Creation of Movement for Canadian Literacy

1989
Survey of Literacy Skills Used in Daily Activities (LSUDA)

1994
First International Adult Literacy Survey (IALS)

1994
Essential Skills Research Project (ESRP)

Royal Commission on Aboriginal Peoples
1996

Ningwakwe Learning Press created
1999

National Aboriginal Literacy Gathering
2000

Nation Indigenous Literacy Association (NILA) established
2002

International Adult Literacy Statistics Survey (IALS) - first survey to include Native literacy statistics
2003

National Education Action Plan (Indian and Northern Affairs) created
2004

First Nations Education Manifesto (prepared by the Chiefs of Ontario)
2005

Government of Canada issues a formal public apology to First Nations people to acknowledge damage resulting from residential schools and past assimilation policies
2008

2003
Essential Skills and Workplace Literacy Initiative

2003
Adult Literacy and Life Skills Survey (ALLS); International Adult Literacy and Skills Survey (IALSS) contains Canadian details

2005
Ministerial Advisory Committee on Literacy and Essential Skills appointed

2007
Office of Literacy and Essential Skills (OLES) created

Defined and Aligned:
The Meaning of Essential Skills and Their Connection to Adult Literacy

By using Essential Skills language, students are becoming more aware of skills needed to attain their learning goals.

Jim Mackrory,
Hamilton Wentworth District School Board.

The nine Essential Skills were identified and defined by HRSDC in the early 1990s, and have since been described as "the Velcro to which other training sticks". Virtually all Canadian occupations — including unpaid work like volunteering, household and personal management, parenting, and community involvement — require the use of a bundle of Essential Skills for individuals to effectively complete a task.

While Essential Skills (ES) development supports the upgrading, training, re-training and on-the-job success of individuals wishing to enter or advance within the workforce, the benefits are wide-sweeping both on and off the job.

Essential Skills Development

- Increases ability to work independently
- Improves problem solving and communication
- Increases self-confidence
- Contributes to better health and safety at home and on the job
- Increases ability to use technology
- Supports flexibility and the ability to adapt to change

ES development addresses the reality that we live in an ever-changing world, and people, as well as the skills they need to adapt to change, must evolve. Consider how computer skills honed in the 1980s would never adequately support software use in the 21st Century.

Literacy skills are also susceptible to a "use it or lose it" phenomenon, and continuous use or upgrading of skills is required to maintain or improve proficiency.

Finally, ES research shows that the level of skill proficiency required to complete a task varies depending on the demands of the task itself. For example, reading a simple note requires basic literacy skills, while reading and interpreting a research report demands a higher level of mastery.

Measuring Task Demand Complexity Levels

Most of the Essential Skills are divided into five levels of complexity based on the International Adult Literacy Survey (IALS) 500-point scale. Unlike the Literacy and Basics Skills (LBS) scale, which measures level of skill, the IALS/ES scales measure the difficulty of the task.

IALS 500-Point Scale

0 - 500

Level 1 0-225	Level 2 226-275	Level 3 276-325	Level 4 326-375	Level 5 376-500
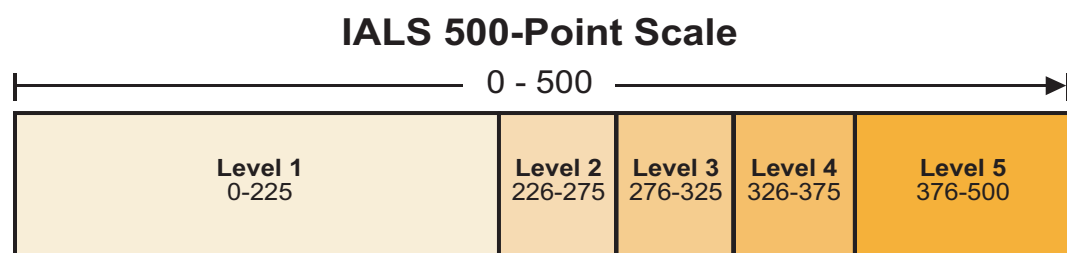
Essential Skills 5-Level Scale

Recognizing the similarities and differences between ES complexity levels and LBS levels is the first step towards incorporating ES tools and resources into adult literacy programming. To do this, it is helpful to review the framework for the IALS, which was introduced in Chapter 2. The IALS defines literacy in terms of three domains.

Prose Literacy
The knowledge and skills necessary to understand and use information from text 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 material, 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.

Within each of the above domains, tasks are rated according to five levels of difficulty. For example, Level 1 tasks in the quantitative literacy domain require the ability to perform simple single operations such as addition.

More difficult or multi-level operations fall under progressively higher levels of complexity (up to Level 5).

Deciphering the complexity levels, it has been noted, is possibly the most difficult part of understanding Essential Skills. ES complexity levels do not directly correspond to LBS levels, and some of the Essential Skills, including Document Use, identify complexity based on more than one facet of the skill.

It is extremely important that literacy practitioners understand that while many organizations have attempted to create a connection, no large scale articulation of the two systems in Ontario (LBS/AU and ES) has been carried out. In fact, several of the attempts have resulted in comparisons that are vastly different from one another. For example, Manitoba has undertaken articulation research to link ES complexity levels with its adult programming. Manitoba's *Certificate in Literacy and Learning Program* provides assessment and training for adult literacy learners according to Stages 1 through 3 and is aligned to ES levels.

The research matched "a significant number of tasks" with the complexity levels within the ES profiles. A fairly strong alignment was found for Stages 2 and 3 of its adult programming with ES levels 2 and 3 respectively. Stage 1 was found to be only moderately aligned. This means that ES Level 1 tasks require more highly developed abilities than Stage 1 learners generally have.

ABC Canada has posted on their website a slide presentation describing their Strategic Plan. ES Level 1 is described as "very limited print skills to approximately grade 6". ES Level 2 is described as "approximately grade 7 – 11 level".

In another example, Literacy Link of Eastern Ontario's (LLEO) draft articulation of their CABS manual learning outcomes to ES noted few, if any, alignments with ES levels 4 and 5. CAES (Common Assessment of Essential Skills) reflects all nine Essential Skills but considers complexity levels for only Reading Text, Document Use, and Numeracy.

The following table was crafted using information developed very early in the introduction of Essential Skills (1997) to provide simplified, approximate correlations that represent how we might think about the possible connections between IALS, ES, and LBS levels. One should be able to deduce from this example that ES complexity levels reflect a more complex range of skills in comparison to LBS levels.

IALS 500-Point Scale	ES Complexity Level	LBS Level
Prose Literacy **0 - 225**	Reading Text, Writing Oral Communication **Level 1**	Communications **Levels 1 - 3**
Prose Literacy **226 - 275**	Reading Text, Writing Oral Communication **Level 2**	Communications **Levels 4 - 5**
Document Literacy **226 - 275**	Document Use Computer Use **Level 1**	Communications **Levels 1 - 3**
Document Literacy **0 - 225**	Document Use Computer Use **Level 2**	Communications **Levels 4 - 5**
Quantitative Literacy **0 - 225**	Numeracy Thinking Skills **Level 1**	Numeracy **Levels 1 - 3**
Quantitative Literacy **226 - 275**	Numeracy Thinking Skills **Level 2**	Numeracy **Level 4**

The research and attempts to relate levels of complexity between the various systems help us understand more clearly the differences between LBS and ES, as well as the difficulty adult literacy practitioners have in trying to compare them. Although ES and LBS levels may never be matched "apples to apples", adult literacy practitioners will benefit from adopting ES methodology because it helps identify highly-defined basic skills, provides excellent tools for assessing and measuring skill development, and reflects a universally recognized "language" used for common skills assessment.

ES Complexity Levels – The Answer is in the Cards

A helpful illustration of the increasing complexity of tasks follows in an exercise developed by Donna Palmer, a Canadian leader in ES research and development.

Task 1:

> Distribute a full deck of cards to each participant. Ask that participants sort through the cards to find the Ace of Hearts. Ask someone to describe the process they followed to complete the task (single **locate** and direct match).

Task 2:

Ask participants to shuffle the deck of cards, find all four Aces (Hearts, Diamonds, Spades and Clubs), and lay them on the table. Again, ask someone to describe the process **(cycle** through the deck to locate and match two or more items to complete the task).

Task 3:

Ask the participants to shuffle the cards again, sort through them to find all the cards in a single suit, and place them in order on the table. In this task, multiple pieces of information must be located and another step (sequencing) has been introduced. Increased time and information is required to complete this task (multiple locates and additional step — **integrate**).

Task 4:

After shuffling the deck (this step is actually a distraction as they will not actually need to sort through the cards to complete the last task although they may decide to use them as an aid), ask participants to identify the highest scoring hand for each of the three most popular card games in North America. This is a much more difficult task because of the various and complex demands made (much more time required to complete task and prior knowledge required to **generate** answer).

This exercise illustrates increasing complexity of tasks. The least complex task involves a single **locate.** Complexity increases with the requirement to **cycle** to find multiple pieces of information. At the next level, one has to **integrate** the multiple locates in order to sequence them. In the last task, much more time is required and prior knowledge is necessary. This is known as **generate**.

Locate, cycle, integrate, and generate require an increasing amount of brain power and illustrate complexity connected to the IALS scale:

Level 1 .... Locate

Level 2/3 .... Cycle

Level 3/4 .... Integrate

Level 4/5 .... Generate

Complexity ratings are included in each ES profile to illustrate the difficulty of completing tasks as they pertain to a specific occupation, and to recognize the differences in skill requirements between various occupations and different jobs within an occupational group.

It is important to understand that the *skill demands of the task* are assigned a level, not the Essential Skill itself. It also is important to note that not all Essential Skills have a five-level rating scale. For example, Oral Communication has only four levels of complexity. Recently added profiles now include complexity ratings for Critical Thinking, Working with Others, and Continuous Learning. Previously, these Essential Skills were not assigned a complexity rating.

One suggestion for determining how certain ES tasks could be evaluated for use with LBS learners would be to compare information and examples (from the Levels Descriptions Manual http://www.nald.ca/fulltext/levels/ levels.pdf) to sample tasks from various ES profiles and ES complexity rating scales.

The ES website provides excellent illustrative examples of complexity levels that use language and terms similar to LBS language. Three complexity rating scales for Reading Text, Document Use, and Writing are available within the *Companion to the Authentic Workplace Materials User Guide* (http://srv108.services.gc.ca/awm/main/c_toc_e.shtml).

These scales can be used to help better understand the meaning of levels of complexity within the ES system, and how they can be used to effectively assess skill attainment.

Essential Skills Defined

> *Through Essential Skills development, students gain a better appreciation of how reading, writing, and other skills are used in the workplace. They also acquire a greater understanding of how communicating and problem solving, for example, affect success at work.*

> *Barbara McFater*
> *PTP Adult Learning & Employment Programs*

For adult learners and literacy practitioners, ES definitions provide insight into the types of skills people need to develop so they can function effectively in today's society. Strong Essential Skills lay the foundation for further skill development and, depending on the individual learner's goals, can open the door to a variety of opportunities.

The following ES definitions are drawn from the ES website's *Readers' Guide to Essential Skills Profiles*. To further clarify the authentic application of each Essential Skill, examples have been provided that pertain to work, learning and life. All tasks described reflect ES complexity levels 1 and/or 2.

As you review the examples, think about how the examples relate to the LBS skill sets and success markers as described in the 1998 Learning

Outcomes Matrix. For example, under the *Communications* domain, the component outcome *Read with Understanding for Various Purposes* includes skill sets that intersect with several Essential Skills, including Reading Text, Document Use, Writing, Problem-Solving, Decision-Making, Job Task Planning and Organizing, Finding Information, and Computer Use.

By working with learners to develop basic literacy skills, such as reading and comprehension, practitioners are supporting the development of the Essential Skills of Reading Text, Document Use, and other Essentials Skills depending on the task completed by the learners. In turn, it would make sense to use ES materials to enhance learners' basic skills development.

Definitions and Examples

> *We have incorporated an Essential Skills segment into our tutor training workshop to encourage tutors to help students identify the Essential Skills they already have and those they will need to work on in order to accomplish their goals. We want them to realize that every task - workplace, home or in the community - incorporates Essential Skills.*
>
> *Connie Morgan,*
> *Barrie Literacy Council*

READING TEXT

Reading Text refers to reading materials in the form of sentences or paragraphs. Applications of Reading Text include notes, letters, memos, manuals, specifications, regulations, books, reports, journals, and forms, labels, charts, tables, and graphs containing at least a paragraph of text. Examples of text can be found in either print or non-print material (computer screen or microfiche).

Examples of Reading Text for:

Work
A forklift operator reads the manufacturer's label to determine the maximum load the forklift can carry.

Learning
A learner reads the instructor's Code of Conduct to determine what is expected of students in the classroom setting.

Life
A homeowner reads a notice from the municipality to determine how her family should prepare for a water hydrant flush.

DOCUMENT USE

Document Use refers to tasks that involve a variety of information in which words, numbers, icons and other visual characteristics (e.g., lines, colours, and shapes) are given meaning by their spatial arrangement. Applications of Document Use include reading, interpreting, completing or producing graphs, lists, tables, blueprints, schematics, drawings, signs, labels, and a variety of non-print media such as equipment gauges, computer screens, clocks, and flags.

Examples of Document Use for:

Work
A meter reader gathers information from gauges to calculate the amount of water, electricity, or natural gas used.

Learning
An apprentice ironworker studies basic hydraulic and pneumatic symbols to be able to interpret technical drawings.

Life
A pedestrian watches the traffic lights to decide when it is safe to cross

WRITING

Writing means writing in text and documents, such as filling in forms, and non-paper based writing such as typing on a computer. Applications of Writing include both formal and informal tasks such as writing notes, filling in forms and creating reports. Writing also can include non-paper-based tasks such as typing on a computer.

Examples of Writing for:

Work
An insurance clerk uses a computer generated form to file a claim.

Learning
A person fills out a registration form to take a course.

Life
A mother writes a note to the teacher to explain why her son cannot participate in gym class.

NUMERACY

Numeracy refers to the use of numbers and thinking in quantitative terms. Applications of Numeracy include handling money, budgeting, measuring, calculating, analyzing data, and estimating.

Examples of Numeracy for:

Work
A window installer measures and calculates the perimeters of a window or door opening to ensure a proper fit.

Learning
A learner uses fixed mathematical formulae to compare a group of fractions.

Life
A commuter sets aside the exact change required to ride the bus.

ORAL COMMUNICATION

Oral Communication pertains to the use of speech to give and exchange thoughts and information. Applications of Oral Communication include conversations, seeking or obtaining information, leading a group, or providing comfort or reassurance.

Examples of Oral Communication for:

Work
A grocery store supervisor gives verbal instructions to shelve stockers so they know where to display the shipment of sale-priced products.

Learning
A student delivers an oral presentation on global warming to inform fellow classmates.

Life
A car owner gives the courtesy vehicle driver directions to her house so he can take her home.

THINKING SKILLS

Thinking skills are defined as the process of evaluating ideas or information to reach a rational decision. Applications of Thinking Skills include Problem-Solving, Decision-Making, Critical Thinking, Job Task Planning and Organizing, Significant Use of Memory and Finding

Information. While these cognitive functions are different, they are interconnected.

> **Examples of Thinking Skills for:**
>
> **Work**
> A cook needs to plan the timing of preparing orders so each person at a single table receives their meals at the same time.(Job Task Planning and Organizing – refers to the extent to which one plans and organizes their own tasks.)
>
> **Learning**
> A student has to gather information in order to write a research paper. (Finding Information involves using sources including text, people, and computerized information systems.)
>
> **Life**
> A parent must remember to check the calendar each day so she knows what day to send money with their child for hotdog day. (Significant Use of Memory – includes a significant or unusual use of memory.)

WORKING WITH OTHERS

Working with Others means the extent to which individuals work with others to carry out tasks. Applications of Working with Others reflect the self-discipline and cooperation required to function within four types of work contexts. These include working alone, independently, with partners, or as a team member.

> **Examples of Working with Others for:**
>
> **Work**
> An apprentice works alongside an experienced tradesperson to learn a trade.
>
> **Learning**
> A student works hard to prepare and share the workload as a member of a group working on a joint assignment.
>
> **Life**
> A member of a community volunteer group helps plan and organize a fundraising event to help the organization.

COMPUTER USE

Computer Use indicates the variety and complexity of computer use. Applications of Computer Use include varying levels of interaction with

computer-controlled equipment, software programs, and information technology systems.

> **Examples of Computer Use for:**
>
> **Work**
> An office clerk uses a word processing program to produce form letters on company letterhead.
>
> **Learning**
> A student uses a library's computerized database to search for information.
>
> **Life**
> A person uses a home computer to pay bills through Internet banking.

CONTINUOUS LEARNING

Continuous learning is the on-going process of acquiring skills and knowledge. Applications of Continuous Learning not only include training and skills upgrading, but also an individual's understanding of his own learning style, knowing how to learn, and knowing where to access learning materials, resources, and opportunities.

> **Examples of Continuous Learning for:**
>
> **Work**
> A salesperson attends a workshop to learn about a new product line that the company is going to carry.
>
> **Learning**
> A student participates in a learning style assessment workshop to identify the way she learns best.
>
> **Life**
> A volunteer soccer coach takes First Aid/CPR training so she is better able to deal with an emergency situation.

Summary

The nine Essential Skills were defined by HRSDC to reflect the skills people use to deal with the demands of work, learning and life. Every individual possesses Essential Skills; however, the level to which their Essential Skills have been developed will determine their ability to accomplish increasingly complex tasks.

Well-developed Essential Skills provide a number of benefits including greater personal, social and economic gains. The nine ES definitions are presented with task examples from work, learning and life contexts. Literacy practitioners and learners can use these to determine which skills to focus on. Most tasks require the bundling of Essential Skills in order to complete them. There currently are no validated articulations between ES and Literacy and Basic Skills, however there is similarity in the measurement tools, task examples and the language used.

Questions to Consider

1. What goals are common for literacy learners?

2. How do these goals relate to Essential Skills definitions and complexity levels?

3. Can ES be integrated into programs for learners with goals that are not employment related?

4. What ES application examples could practitioners develop that would reflect the goals of literacy learners?

5. How could practitioners modify task examples from the ES profiles to reflect and develop non-employment goals?

6. Would cultural-based programming benefit from Essential Skills applications?

From Research to Practical Application:

Essential Skills Profiles

Integrating Essential Skills into the training helps students acquire the skills to be flexible and work safely and productively. Canadore College recently developed programming integrating Essential Skills that targets unemployed individuals wishing to work in construction trades.

Barb Glass, Academic Upgrading Faculty, Canadore College

Essential Skills learning and applications do not replace academic learning – they reside within it. They can be used to help learners understand how Essential Skills support work, learning and life. Examples in each of these contexts were presented in the previous chapter.

The federal government has developed a valuable tool applicable to the world of work, but the tool also is useful to developing materials for other purposes.

ES profiles describe how Essential Skills are used in occupations included in the National Occupational Classification (NOC).

Practitioners are using ES profiles to:

- Help students identify and self-assess transferable skills;
- Support career research and goal-setting;
- Determine program content;
- Assist students to understand application of their learning;
- Frame goal-related activities and assignments;
- Understand the complexity level of activities and assignments;
- Identify similar learning goals/needs among groups of students;
- Foster a common language among learners, practitioners and employers.

This chapter provides information about ES profiles including the methodology used to create them, the structuring of a profile, and accessing the supporting information within the profiles.

Background

A growing body of international research as outlined in Chapter 2 helped researchers identify a set of teachable, transferable and measurable skills we now know as *Essential Skills*. Individuals apply these skills every day – in work, learning and life.

Because a nation's prosperity is directly linked to the labour market, a language and methodology to describe how – and at what level – these skills are used in employment was developed. This resulted in the creation of ES profiles. The NOC provides the structure needed to catalogue ES profiles *(see NOC Overview, Appendix 4).*

The federal Essential Skills website provides a short description of the ES profiling methodology.

Open interviews are conducted with workers to gather information on how they use Essential Skills on the job. A sufficient number of workers in an occupation - at least nine - are interviewed to provide a sample representing different industries, occupational specializations, business sizes, and geographic locations. Researchers then analyse the data to identify common tasks and rate their complexity. The range of data collected and the number of independent quality control reviews ensure that example tasks accurately reflect workplace skill requirements. The result is an Essential Skills profile that illustrates how the nine Essential Skills are used in an occupation. While in the workplace, researchers also gather Authentic Workplace Materials to provide real life examples of how workers use Essential Skills.

ES profiles describe how each of the nine Essential Skills is used by workers in a particular occupational family. All occupations requiring secondary school education or less have been profiled, and research is ongoing to complete occupational profiles on jobs that require apprenticeship, college or university training. The profiles are a valuable tool in adult literacy and upgrading programs where they can be used for career research, goal setting, identification of skills gaps, development of learning plans, creation of learning tools to support ES development, and identification of instances where ES teaching and learning opportunities already exist in curriculum, assignments, activities and projects.

Essential Skills Profile Structure

All ES profiles use the same basic structure. This makes it easy to become familiar and comfortable with using them.

The information is presented in components using the following structure:

Occupational Title

    NOC Code

    Introduction

    Most Important Essential Skills

    Document Sections

- Reading Text
- Document Use
- Writing
- Numeracy
- Oral Communication
- Thinking Skills
  - Problem Solving
  - Decision Making
  - Critical Thinking
  - Job Task Planning and Organizing
  - Significant Use of Memory
  - Finding Information
- Working with Others
- Computer Use
- Continuous Learning
- Other Information
- Notes

A brief overview of each component or section is provided. While reading the next section on ES profile structure, enter http://srv108.services.gc.ca in the address bar of your Internet browser. Once this page opens: Click on *English.* This will take you to the Essential Skills home page. There is a sidebar on the left hand side of this page, with several topics listed.

Click on *Essential Skills Profiles.* Using the scroll bar on the right hand side of your screen, scroll to the bottom of the page.

Under *For more information, follow the links below,* click on *Search the Profiles.* You will be taken to a new page, which lists six ways in which the profiles can be searched – by *Occupation*, *Keyword*, *Most Important Skills*, *Skill Levels, NOC*, and *Advanced Search*. Click on *National Occupational Classification* (NOC). This will again move you to a new page titled *Search by Occupation.*

This may seem like a very complicated process but with use it will become familiar, and searching the profiles based on preferred criteria will be easier.

The *back* and *forward* arrows at the top left of the screen move back and forth between screens quickly when seeking more than one profile, so the reader does not have to start from the beginning for each profile.
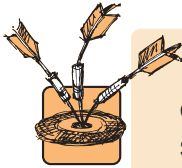
TIP: With the Essential Skills website *Search the Profiles* page open, click the *Favourites* icon in the toolbar at the top of your screen. Click on *Add to Favourites*. The ES profile page address will be highlighted in blue. Press the backspace key to remove, and enter *Search ES Profiles* as the name and click *Add*. Any time you want to search or look at profiles, it is easy and quick to get to the page by clicking on the *Favourites* icon, then in the drop down box click on *Search ES Profiles*.

The cursor will flash in a box that requires a NOC code. For the purpose of this exercise, enter the NOC code 661 and click on *next*.

The next page lists the Occupational Title(s) and View Profile(s) for each profile that matched the selection. In this case, click on *View Entire Profile* for Cashiers (6611). The first digit (6) indicates the type of work performed and the area of study required. The second digit indicates skill level. The third digit (1) represents a smaller group of occupations within the area represented by the first two digits. The fourth digit further specifies the occupation.

ES Profile Structure – A Map

Note that when viewing an ES profile online, any titles or words that are in blue and underlined indicate access (or let you drill down) to further background information. The following is a brief overview of the profile structure. Short segments of a profile as viewed on the website are followed with a brief explanation of the information provided in each section. Each explanation is in a separate text box. For more in depth information, refer to the *Reader's Guide* or click on the blue text and

underlined words to be taken to the pertinent section of the NOC or Reader's Guide.

(To readers accessing this manual in a pdf format, the headings in the following sample profile have been set up to match the presentation on the Essential Skills website for training purposes, and are not hyperlinked to the Reader's Guide. They cannot be used to link to information contained on the website.)

> *Working on Essential Skills prepares students to use the language of the workplace, in how to present themselves in the best light, and how to communicate with interviewers and employers. It certainly develops their self esteem and their ability to think critically.*

<div align="right">

Margaret Maynard
Niagara West Employment & Learning Resource Centres

</div>

Summary

The most important Essential Skills for Cashiers are:

Document Use
Numeracy
Oral Communication
Significant Use of Memory

Most Important Essential Skills - Not all skills are of equal importance to an occupation. This section identifies the Essential Skills that are the MOST important to an occupation, and help determine the weighting of skills within an occupation. This information is helpful in developing learning opportunities and activities for individual learners, but also to determine common learning opportunities for a group of learners.

Document Sections - This segment of the profile provides the most important and useful information for literacy and upgrading practitioners. Each section focuses on an individual Essential Skill, and most sections are presented using a similar structure and headings. Sections all begin with the Essential Skill name or label. Click on any of the headings in the Document Section to go directly to the topic area in the document. Use the back arrow to return to the Document Sections headings. Underneath are three column headings:

Document Sections
Reading Text
Document Use
Writing
Numeracy
Oral Communication
Thinking Skills

Click on Reading Text. This will place this section of the document on the screen. Underneath the main headings are three column headings:

Tasks	Complexity Level	Examples

Under the task column, both Typical and Most Complex are identified. The Reader's Guide defines these as:

Typical - a task which is typical occurs frequently in the job or occurs less frequently, but nevertheless is required by virtually all incumbents.

Most Complex - a task considered most complex was identified as such by the workers interviewed. Factors affecting whether a worker identified a task as most complex include the difficulty of the task, how frequently the task is performed, and the worker's familiarity with the task.

Problem Solving
Decision Making
Critical Thinking
Job Task Planning and Organizing
Significant Use of Memory
Finding Information
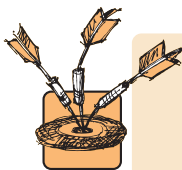
Tip: The complexity level is based on the highest level assigned to Typical tasks, i.e. Typical Task rating 1 - 3, Most Complex Rating 4, translates to a skill rating of 3 for the specific skill. It is important to recognize not all jobs within the occupational group will include tasks at the highest level of complexity reported.

Reading Text
Document Use
Writing
Numeracy
Oral Communication
Thinking Skills

Click on Reading Text. This will place this section of the document on the screen. Underneath the main headings are three column headings:

Tasks   Complexity   Examples
         Level

Under the task column, both Typical and Most Complex are identified. The Reader's Guide defines these as:

Typical - a task which is typical occurs frequently in the job or occurs less frequently, but nevertheless is required by virtually all incumbents.

Most Complex - a task considered most complex was identified as such by the workers interviewed. Factors affecting whether a worker identified a task as most complex include the difficulty of the task, how frequently the task is performed, and the worker's familiarity with the task.

Complexity Levels - Workers perform tasks at various levels of complexity. This column identifies the range of complexity levels of the tasks performed in the occupation for both Typical and Most Complex Tasks. The complexity level scale used for Reading Text, Document Use and Numeracy is the 5-level Essential Skills scale, based on the IALS 500-point scale discussed in the previous chapter. Some skills use a 4-level complexity scale. See the Reader's Guide for more information.

Examples - Descriptions of tasks that most workers in this occupation perform are listed in this column. Each Essential Skill includes examples to illustrate how that skill is used, providing information on the nature and range of tasks performed. The Essential Skill complexity level of the task is provided in brackets at the end of each example.

Problem Solving
Decision Making
Critical Thinking
Job Task Planning and Organizing
Significant Use of Memory
Finding Information

Working with Others
Computer Use
Continuous Learning
Other Information
Notes
Links to Other Sites

In addition to Essential Skills document sections, there are three additional sections - Other Information, Notes and Links to other websites with information about this occupation. The most important information in these sections addresses future trends affecting Essential Skills.

In this section, ES profiles were introduced. Knowledge of the structure, content, characteristics and features of ES profiles prepares readers to begin navigating the profiles with an understanding of the type and purpose of the information they contain. Further information is available on the Essential Skills website in the *Reader's Guide*.

Familiarity with the NOC will help readers find appropriate profiles matching learner goals. An introduction to NOC is provided in Appendix 4.

Questions to Consider

1. Is all the information contained in an ES profile relevant to all learners?

2. Are ES profiles useful to developing task examples in contexts other than work?

3. How can information from ES profiles be used to support learners?

4. What kinds of activities can be developed using ES profiles?

Essential Skills are a powerful way to communicate employment-related competencies. Clients can identify their own skills relative to their employment goals. Employers can identify skill needs. The language of Essential Skills enables educators and service providers to work with both employers and employees to match the skill set of people with the skills required for the job, business success and for job satisfaction.

Andrea Leis,
Director, School of Career & Academic Access, Conestoga College.

Putting Essential Skills to Work:

Tips for Using Essential Skills Profiles

I believe that by using the Essential Skills profiles, the training we do is more focused. It is more focused on the skills necessary to reach the employment goal.

Jill Slemon
London District Catholic School Board.

Essential Skills profiles – introduced in Chapter 4 – are valuable tools for practitioners who provide upgrading programs, career research or employment services to learners/clients. ES profiles can be lengthy (up to 25 pages) and may, at first, seem to be an overwhelming amount of information through which to sift.

This chapter highlights four of the key sections of an ES profile which will provide particularly useful information to practitioners. Various resources will be identified and tools, tips and templates provided.

These four key sections are called *Most Important Essential Skills*, *Task Examples*, *Complexity Rating* and *Skill Summary*.

Most Important Essential Skills

This section identifies the most important ES in the occupation, and can be used to prioritize or emphasize learning activities and applications of importance to learners' goals. Practitioners can compare the chosen occupations of learners and identify what they have in common, i.e., identify occupations in which the most important ES skills are the same. Learning activities and tasks common to a group of learners' goals can be developed, even though individuals' goals differ.

Task Examples

This section illustrates the ways in which each of the Essential Skills is used in occupations. Task examples are presented for each ES in ascending order, from the least complex to the most complex. Although the examples are work-based, they are helpful in identifying or developing authentic tasks from work, learning or life that will be helpful or of interest to learners.

Complexity Rating

Each ES section of a profile identifies the range of complexity levels applicable to that skill in that occupation. In an earlier chapter, readers were introduced to the Complexity Scale used to measure the complexity or difficulty of tasks. Tasks described in ES profiles use the HRSDC 4 and 5-level scales. Task examples are followed by a bracketed number. The number following each task identifies the complexity level of that task. Profiles can be used to identify the range of goal skills levels for individual learners as well as across particular groups of learners to help develop training plans, assess learning needs and develop learner assignments or group activities.

Skill Summary

Some skill sections include a S*kill Use Summary*. Skill summaries are provided as tables, lists and/or descriptive paragraphs. Skill summaries presented in tables or lists allow the comparison and contrasting of specific skills across occupations. For example, the occupations of cook, general office clerk, and carpenter do not have a lot in common at first glance. Using the Reading Summary provided at the end of the Reading Text section of a profile identifies both similarities and differences in the types of texts read and the purpose of reading across these three occupations. This information helps practitioners to develop learning materials and activities to support all three occupational goals. Skill summaries are not included for Thinking Skills, Working with Others, or Continuous Learning.

Reviewing and documenting information from learner-goal profiles helps to:

- identify *most important Essential Skills* and range of skills levels common to occupational goals of groups of learners;

- develop authentic materials and common lessons and activities that are important to individual and groups of learners;

- prioritize learning and activities when working with learners who are able to commit only to short programs;

- compare and contrast specific skill requirements such as purpose of reading, type of text or document, mathematical foundations used.

The next chart compares the Essential Skills requirements of the different occupational goals for a group of learners. Shaded boxes indicate the most important Essential Skills for each occupation.

ES Skills and Levels Comparison Chart

Shaded areas or circled levels indicate most important skills

NAME	OCCUPATIONAL GOAL	NOC CODE	READING TEXT	DOCUMENT USE	WRITING	NUMERACY	ORAL COMMUNICATION	PROBLEM SOLVING	DECISION MAKING	CRITICAL THINKING	JOB TASK PLANNING AND ORGANIZING	SIGNIFICANT USE OF MEMORY	FINDING INFORMATION	WORKING WITH OTHERS	COMPUTER USE	CONTINUOUS LEARNING
Ima Learner	Cashier	6611	2	2	1	2	1	2	2		1	-	1		2	
Hesa Learner	Industrial Electrician	7242	3	4	2	3	3	3	3		2	-	4		4	
Shesa Learner	Early Childhood Educator	4214	2	2	2	2	2	2	2		2	-	2		2	
Ura Learner	Shipper/Receiver	1471	2	2	1	3	1	2	2	2	3	-	2		2	
Bea Pupil	Pharmacy Assistant	3414	3	2	2	3	2	2	2	3	1	-	3		2	
Emma Pupil	Librarian	5111	3	3	3	3	3	2	3	3	2	-	3	2	3	
Noah Pupil	Pilot	2271	3	3	2	3	2	3	3	3	3	-	3	3	2	3
Stu Dent	Ironworkers	7264	3	3	2	3	3	3	3	3	1	-	2	3		2
Justin Thyme	Lathe Operator (Woodworking)	9512	3	2	2	3	2	2	3		2	-	2		1	

Note:

- the number of learners/occupations with oral communication as one of the most important skills;
- that only two learners/occupations do not include one or more of the Thinking Skills as most important;
- that most Essential Skills level requirements identify two distinct groups within the group of learners, especially for Reading Text, Document Use and Numeracy.

After reviewing the chart, think about the ways you might use this information to develop activities and assignments specific to particular groups of learners within the larger group. Essential Skills are "transferable" skills, and a completed chart helps to identify common areas of focus that will be important to individual and groups of learners' goals.
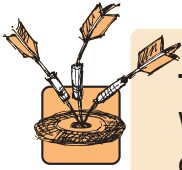
TIP: Remember that complexity scales for Critical Thinking, Working With Others and Continuous Learning have been developed and included in ES profile methodology after the profiling process had begun. Not all profiles will include a level for these skills.

Researching this information for a group of learners is labour-intensive and time-consuming. Consider having the students research ES information and identify their learning priorities as part of their career/occupational research. Completing the chart also can be used as an activity focusing on specific Essential Skills such as Reading Text, Document Use, Finding Information and Computer Use. This exercise provides an opportunity to learn and practice many of the Essential Skills.

The Essential Skills website helps us introduce learners to the Essential Skills. We use Essential Skills Profiles to guide assessment, determine training needs, and help learners discern if a particular career is a good fit for them.

Wayne Miedema, Waterloo Region District School Board.

Create an *Individual Essential Skills Profile Data Collection Form* (*see example*) for learners to collect the information needed to complete the chart, make comparisons/contrasts and help develop learner materials.

I like the comparison chart reflecting the ES levels and the most important skills requirements – all on the same chart. I find this helpful as a quick reference when drawing up training plans and preparing for testing. The compilation of the chart is a good class activity leading to setting or confirming a goal. I build it around research and computer use. It's a great 2 in 1!

Elaine Nadalin,
Essential Skills Specialist, Fanshawe College

Individual Essential Skills Profile Data Collection Form

Individual Essential Skills Profile Data

Name: Ima Learner

Goal: Cashier   **NOC Code:** 6611

Occupational Title: Cashier

Essential Skills Information:

Put a check mark (✔) in the "Most Important" column beside the Essential Skills listed as most important on the Essential Skills profile you are working with. Write the level (number) in the "Level" column for each Essential Skill. If no level is provided for the skill in the profile, write "NP" to indicate a level was not provided.

Essential Skill	Most Important	Level
Reading Text		2
Document Use	✔	2
Writing		1
Numeracy	✔	2
Oral Communication	✔	1
Thinking Skills		
- Problem Solving		2
- Decision Making		2
- Critical Thinking		NP
- Job Task Planning & Organizing		1
- Significant Use of Memory	✔	NP
- Finding Information		1
Working with Others		NP
Computer Use		2
Continuous Learning		NP

My priority areas for Essential Skills improvement are:

I need to work on 3 most important skills. I am not familiar with documents that might be used by cashiers, my math skills are weak and I need to be more comfortable when speaking to people I don't know.

A blank copy of this chart is included in Appendix 3.

Essential Skills language is task-oriented and describes how skills are used *to do* or *to complete* a specific task.

In Chapter 3, task examples were provided for each skill in the context of work, learning and life. There are opportunities — in materials, resources

and documents used in learning environments — to make ES more explicit for learners. Curriculum, learning outcomes, assignments or other resources often contain action verbs such as *write*, *calculate*, *complete*; or nouns associated with the action verb such as *fraction*, *chart*, *table* or *documentation*.

These same verbs and nouns often appear in documents containing doctor's instructions, school policies and job descriptions. Practitioners can review ES language learning materials to identify where ES learning opportunities exist. These opportunities can be used to help learners pick out examples of Essential Skills and determine if more than one Essential Skill is needed to accomplish a task.

Essential Skills Alerts

The ES Alerts in this chapter have been compiled from ES profiles. Compare them to language in other program and classroom materials to develop activities, assignments and examples.

ES profiles use the language of work and are task-oriented. The verbs found in task example descriptions are action verbs, or nouns associated with the action verbs, and are often used in course outlines, curriculum documents, learning materials, assignments and activity instructions. They are also found in job descriptions.

Verbs used in teaching/learning materials help identify where ES learning opportunities already exist and lend themselves to making ES more explicit. Use task examples from profiles to illustrate, describe or develop activities. The lists below (adapted from Bloom's Taxonomy) are not exhaustive. Add other alerts as you find them.

Reading Text	Document Use	Numeracy
• according to (e.g. codes, OHS or other legislative requirements, specifications, etc.)	• according to (e.g. signs, labels, symbols, icons, charts, graphs, OHS, etc.)	• according to (e.g. signs, codes, labels, etc.)
• appropriate documentation	• check	• accurately
• check.comply with directions	• complete	• adjust
• examine written materials (e.g. invoices, instructions, procedures, manuals)	• consult (e.g. maps, drawings, schematics)	• allowance
	• create (e.g. lists, drawings, forms)	• analyze
• find (i.e. information)	• enter information	• average
• follow written procedures	• examine written materials (e.g. invoices)	• calculate
• identify	• fill in	• collect (e.g. data, payment)
• interpret	• find (i.e. information)	• compare
• locate (i.e. information)	• follow procedures (schematic, diagram)	• computations
• monitor	• identify	• convert
• obtain information	• interpret	• cost, budget
• procedures followed	• input	• decimal
• proofread	• locate	• determine (e.g. value, amount)
• read	• monitor (e.g. gauges)	• estimate
• refer to (e.g. notes, manuals, specifications)	• prepare (e.g. materials lists)	• formula
• review (e.g. legislation, manuals, instructions)	• obtain information (e.g. specifications)	• fraction
• scan	• read	• interpret (e.g. charts, graphs, tables)
• skim	• record or reconcile	• levels, rates, settings
• summarize	• refer to (e.g. drawings, blueprints, schematics)	• measure, monitor
• understand	• scan	• percent
• write report/written report	• sketch	• perform
	• skim	• prepare (e.g. invoices, budgets)
	• understand	• rate, ratio, proportion
		• read, write, count, round off, add or subtract, multiply or divide
		• scale drawings
		• size, width, height, volume, perimeter
		• solve, total, verify statistics, probability
		• time, weight, mass, distance, dimension

Summary

We have created learning activities that involve Essential Skills Profiles for career research and goal setting, developing training plans, and motivating and building confidence. Taking advantage of every practitioner training opportunity has helped in raising the ES bar in our programs and identified new and interesting ways to integrate them into the classroom.

Lynn Young
Academic Upgrading Faculty, Lambton College.

ES profiles provide a rich and varied source of information that can be used to tailor learning activities and develop tools to address various learning contexts. Profiles can be used to identify learning opportunities for individuals or to help identify common learning opportunities for a group of learners. The tools in this chapter have been provided to help practitioners think about and create their own tools to meet the specific needs and goals of their learners.

Questions to Consider

1. Are there ways to revise/modify the Essential Skills and Levels Comparison Chart to be more useful to individual practitioners?

2. Could learners use this chart to compare and evaluate several different occupations in which they are interested?

3. Would a similar chart comparing the type and purpose of reading and document use or mathematical foundations help in preparing activities specific to learners' goals?

4. What kind of activity could practitioners develop to have learners at various levels collect the ES data the practitioner needs to complete the chart? Can Thinking Skills and Computer Use be incorporated?

5. How might practitioners use Essential Skills Alerts to make Essential Skills more explicit for learners? Can Essential Skills Alerts be used to identify ES applications in the contexts of life, learning and work?

Check It Out!
Essential Skills Tools and Resources

The purpose of this manual is to introduce practitioners to the nine Essential Skills, their definitions and to ES profiles.

Now it's time to begin exploring the ways in which you can use ES as learning opportunities for your students/clients. You can use resources that have already been developed or opt to create your own.

Listed below are some websites that provide many tools and resources to help learners improve, practice and apply Essential Skills. Some tools and resources are available for download. Others can be ordered from the owners of the website. Many sites have links to other websites where you will discover additional information, tools and resources. As time permits, be sure to check them out, too.

All websites were operational at publication.

Aboriginal Constructions Careers
www.aboriginalconstructioncareers.ca
The Construction Sector Council created **AboriginalConstruction Careers.ca** to provide young Aboriginal Canadians with information that can help them choose the right career path. Information on 38 trades and occupations in the construction sector is provided and includes examples of Essential Skills tasks from each occupation.

Aboriginal Ironworkers
www.aboriginalironworkers.ca/whatittakes/index_e.asp
This site offers specific information on becoming an ironworker and places Essential Skills within Aboriginal culture.

Adult Basic Skills Resource Centre
www.skillsworkshop.org
This site is owned and maintained by a practitioner in the United Kingdom. There are hundreds of literacy, Numeracy, ESL, ICT, contextual and general resources that can be downloaded and revised for use in Canada. Visitors to this site are encouraged to post their own resources. Some materials will require revision based on Canadian currency, spelling and word usage.

Applications of Working and Learning (AWAL)
www.awal.ca

The AWAL National Project is a professional development project for educators. Participants are placed in a variety of workplace environments to help them connect the curriculum they teach in the classroom with how that curriculum is used in the workplace. Using what they learn, participants develop relevant classroom activities. Between 1998 and 2005, those activities were then stored in an easy to use, searchable, electronic database. *The Big Picture – Essential Skills for Life, Learning and Work* is also included on this website at www.awal.ca/files/BigPicture/BigPicture.html

This curriculum resource document has been designed to enhance students' and teachers' understanding of the Essential Skills used at work, school, and home and in the community. ES have been embedded into curriculum delivery to provide learners with multiple opportunities to demonstrate and reflect on the relevance of ES to their lives.

Bow Valley College
www.towes.com/training.aspx

Bow Valley College has created three Essential Skills resources. *Building Workplace Essential Skills* (student and instructor guide) focuses on Reading Text, Document Use and Numeracy. *On Target! ESL Assessment Tools* is a user-friendly resource book focusing on listening/speaking, reading and writing using the Canadian Language Benchmark guidelines. *Skills for Working, Learning and Living* is designed to improve teamwork, leadership and goal setting and Essential Skills associated with Thinking Skills. This website also provides information about the *Test of Workplace Essential Skills (TOWES).* TOWES assesses Reading Text, Document Use and Numeracy and provides assessment results by level and actual score on the IALS 500-point scale. Results can be interpreted using ES profiles for benchmarking purposes.

Canadian Indigenous People: Workplace Literacy and Essential Skills This publication is a survey of Aboriginal Workforce/Essential Skills Development Programs and includes recommendations for implementation and delivery. This publication can be found on the National Adult Literacy Development (NALD) website at http://library.nald.ca/research/item/5979.

Canadian Language Benchmarks/Essential Skills in the Workplace
www.itsessential.ca/itsessential/display_page.asp

This website provides a wealth of ES information – both general and specific to second language learners. Spend some time spent exploring it. Lesson plans, teaching ideas and other information of interest to practitioners are available here.

College Sector Committee for Adult Upgrading
www.collegeupgradingon.ca/projrep.htm

Various research and project reports about ES in the Ontario community college system are available on this site, including research to date regarding integration of ES into the Ontario Adult Learner Skills Attainment Framework.

Community Literacy of Ontario's Basic Literacy Practitioner Training
www.nald.ca/literacybasics/essentl/intro/01.htm

Community Literacy of Ontario developed a number of comprehensive and valuable tools to help practitioners better understand and utilize the Essential Skills in their literacy practice. The resources include five information bulletins (*Essentially Yours)* and an online, self-directed training module designed to provide literacy agencies and others with training and resources to increase knowledge and awareness of the Essential Skills in Ontario's Literacy and Basic Skills agencies.

Construction Sector Council
www.csc-ca.org

Scroll to bottom of the home page and click on *Essential Skills Workbooks.* Workbooks have been created by SkillPlan for the Construction Sector Council and are available free for download. Workbooks include *Essential Skills Self Assessment, Construction Workers Workbook, Essential Skills Activities for Trades, Plain Language for Construction* and *Using Trades Math.*

Essential Skills
http://srv108.services.gc.ca/english/general/home_e.shtml

Many pages on this site are used throughout this manual. Be sure to explore all of the pages on this site as there are numerous ES tools and resources.

Essential Skills 101 www.learninghub.ca

The Learning Hub of the Avon-Maitland District School Board is a new service that offers free e-Channel courses for adult learners. *Essential Skills 101* is one of several programs available online.

Essential Skills Curriculum
www.lleo.ca/LLEO_pages/resources.html

Literacy Link Eastern Ontario (LLEO) was contracted by the Ministry of Training, Colleges, and Universities (MTCU) to develop ES curriculum for entry-level jobs. Eight titles already are available for purchase on CD and several more will be added in the spring of 2008. The learning activity units, which evaluate and develop learners' Essential Skills on an authentic platform, also double as excellent professional development for practitioners.

How do your skills Measure Up? is available from both the SkillPlan http://skillplan.ca/English/measureup.htm and TOWES http://measureup.towes.com websites. This online resource connects ES and real Canadian workplaces. Students can practice and self-assess using more than 100 activity sets based on workplace documents. Click on the *Workbook* option for occupation-specific assessments. Task complexity levels are consistent with TOWES.

Making Essential Skills WORK for You
www.laubach-on.ca/Trainingpost/makesswork.html

This resource focuses on Oral Communication, Problem Solving, Document Use, Working with Others, and Job Task Planning and Organizing (time management). While the learning activities are workplace-oriented, they can be easily adapted to independence goals. For example, Chapter 3 supports students in developing daily "to do" lists, and then asks them to set priorities. Chapter 4 helps students navigate a city bus schedule. ES and LBS outcomes are both highlighted.

MyGates
www.mygates.ca/index1.html

MyGates was developed by the Ontario Association of Continuing Education School Board Administrators (CESBA) through funding from the Ministry of Training, Colleges and Universities (MTCU). Mygates.ca is for people who are looking for work but do not plan to go to college or university. Learners can learn about jobs in Ontario, what people do at work and how you can get the skills you need to be successful.

National Adult Literacy Database (NALD)
www.nald.ca

This is an online service that provides complete, full text documents and books, as well as a resource catalogue. It designs and hosts websites for literacy organizations, researches and organizes educational material found elsewhere on the Web, connects partners with experts in the field and publicizes literacy-related activities and events. NALD has expanded its focus to encompass the world of work with the creation of **NALD@Work** (www.naldatwork.ca). NALD@Work is an online repository containing program models, teaching and learning materials, assessment tools, research documents and much more.

National Indigenous Literacy Association
www.nila.ca

Enter either the *Learners* or *Practitioners* sites and enter "Essential Skills" in the search bar to locate various documents and research about ES.

Office of Literacy and Essential Skills
www.hrsdc.gc.ca/en/workplaceskills/oles/olesindex_en.shtml

The Office of Literacy and Essential Skills (OLES) focuses on improving the literacy and Essential Skills of adult Canadians. OLES focuses on best practices, the development of practical tools and supports, and provides employers, practitioners and trainers with the tools and supports they need to improve the literacy and Essential Skills of adults. The OLES website includes *The Essential Skills Toolkit* and other helpful links.

Ontario Skills Passport
http://skills.edu.gov.on.ca/OSPWeb/jsp/en/login.jsp

The Ontario Skills Passport (OSP) provides clear descriptions of the Essential Skills and work habits important for work, learning and life. The OSP offers high school students, adult learners, job seekers, workers, employers, teachers, trainers, practitioners, job developers and counsellors a common language, resources and tools that help build competence, confidence and connections. Recent additions to this site include an *Essential Skills Check-in* and *Essential Skills Check-up* tool. **On The Way to Work** is also included on this website at http://skills.edu.gov.on.ca/OSPWeb/jsp/en/OSPWayToWork.jsp.

This resource provides real tasks based on authentic documents and demonstrates embedding ES complexity levels into the Literacy and Basic Skills and secondary workplace destination programming. This is a skills-based, rather than curriculum-based, resource and is useful across Canada.

Ready for Work
www.nald.ca/litweb/province/on/smln/index.htm

Simcoe/Muskoka Literacy Network is in the final stages of piloting six workforce curricula to prepare LBS Level 1 and 2 learners for entry-level positions. Each unit has been articulated to Essential Skills. They also have prepared an ES module for practitioners that offer a variety of learner activities. A manual will be available with the release.

SkillPlan
www.skillplan.ca

SkillPlan, the training arm of the British Columbia Construction Industry Skills Improvement Council, is a national leader in workplace education. It has created various resources that provide educators with supplementary materials to bring workplace Essential Skills into instructional settings. To view the numerous resources available, click on *Resources for Essential Skills at Work* on the left sidebar.

Skills for Life Network
www.skillsforlifenetwork.com

To access free materials and resources, click on *Resources* on the home page. Click on *Resource Downloads* next. *Resource Links* provides hyperlinks to many other sites with free materials and downloads. Materials will require some modifications based on Canadian currency, spelling and word usage.

Steps to Employment
www.settlement.org/steps/manuals.html

These occupation-specific learner and instructor workbooks for second language learners contain some very useful content for adaptation for Essential Skills learning for learners with employment goals.

Sto:lo Nation Human Resources Development
www.snhrd.ca/index.html

This site includes a very informative ES video called ***ESI – Essential Skills Investigation*** and is based on the popular television show ***CSI: Crime Scene Investigation.*** The video is available for purchase from the SNHRD. A second episode has been created in partnership with the Canadian Automotive Repair and Service Sector Council.

Tools for the Trade
www.nald.ca/library/learning/tools/tftt/cover.htm

Developed by Cypress Hills Regional College in Saskatchewan, this workbook of authentic workplace materials provides guided learning activities focusing on ES levels 1 through 3. Occupational activities can be adapted for learners with independence goals.

Glossary of Abbreviations and Acronyms

CCL .... Canadian Council on Learning

CESBA .... Ontario Association of Continuing Education School Board Administrators

CLO .... Community Literacy of Ontario

CSC .... College Sector Committee for Adult Upgrading

CTHRC .... Canadian Trucking Human Resource Council

ES .... Essential Skills:

> **RT** .... Reading Text
>
> **DU** .... Document Use
>
> **WR** .... Writing
>
> **NU** .... Numeracy
>
> **OC** .... Oral Communication
>
> **TS** .... Thinking Skills
>
> > **PS** .... Problem Solving
> >
> > **DM** .... Decision Making
> >
> > **CT** .... Critical Thinking
> >
> > **JTPO** ..... Job Task Planning and Organizing
> >
> > **SUM** ...... Significant Use of Memory
> >
> > **FI** .... Finding Information
>
> **WWO** ... Working With Others
>
> **CU** .... Computer Use
>
> **CL** .... Continuous Learning

ESRP .... Essential Skills Research Project

GDP .... Gross Domestic Product

HRSDC .... Human Resources and Social Development Canada

IALLS/ALLS... International Adult Literacy and Life Skills Survey (2003)

IALS .... International Adult Literacy Survey (1994)

LBS .... Literacy and Basic Skills

LLEO .... Literacy Link Eastern Ontario

LSUDA .... Literacy Skills Used in Daily Activities (survey)

MCL .... Movement for Canadian Literacy

NALD .... National Adult Literacy Database

NILA .... National Indigenous Literacy Association

NOC .... National Occupational Classification

OECD .... Organization for Cooperation and Economic Development

OLES .... Office of Literacy and Essential Skills

ONLC .... Ontario Native Literacy Coalition

APPENDIX 2

ES Skills and Levels Comparison Chart

Shaded areas or circled levels indicate most important skills

NAME	OCCUPATIONAL GOAL	NOC CODE	READING TEXT	DOCUMENT USE	WRITING	NUMERACY	ORAL COMMUNICATION	PROBLEM SOLVING	DECISION MAKING	CRITICAL THINKING	JOB TASK PLANNING AND ORGANIZATION	SIGNIFICANT USE OF MEMORY	FINDING INFORMATION	WORKING WITH OTHERS	COMPUTER USE	CONTINUOUS LEARNING

Individual Essential Skills Profile Data

Name:

Goal: **NOC Code:**

Occupational Title:

Essential Skills Information:

Put a check mark (✔) in the "Most Important" column beside the Essential Skills listed as most important on the Essential Skills profile you are working with. Write the level (number) in the "Level" column for each Essential Skill. If no level is provided for the skill in the profile, write "NP" to indicate a level was not provided.

Essential Skill	Most Important	Level
Reading Text		
Document Use		
Writing		
Numeracy		
Oral Communication		
Thinking Skills		
- Problem Solving		
- Decision Making		
- Critical Thinking		
- Job Task Planning & Organizing		
- Significant Use of Memory		
- Finding Information		
Working with Others		
Computer Use		
Continuous Learning		

My priority areas for Essential Skills improvement are:

_____

_____

_____

Appendix 4

Using the National Occupational Classification (NOC) to Find ES Profiles

Essential Skills profiles are catalogued using the National Occupational Classification (NOC). Profiles can be searched in six ways – by *Occupation*, *Keyword*, *Most Important Skills*, *Skill Levels*, *NOC code* and *Advanced Search*.

Using a commonly-accepted occupation name or keyword associated with an occupation will not always result in a retrieved profile. A basic understanding of NOC reduces time and frustration and improves success when searching for specific profiles.

The NOC website is found at www23.hrdc-drhc.gc.ca/2001/e/generic/welcome.shtml.

NOC Overview

The basic purpose of the National Occupational Classification is to classify occupations according to their skill type and skill level in order to create a standard way of understanding the nature of work. Ten broad occupational categories, based on skill type, are identified in NOC:

0 – Management Occupations (These occupations span all skill type categories.)

1 – Business, Finance and Administration Occupations

2 – Natural and Applied Sciences and Related Occupations

3 – Health Occupations

4 – Occupations in Social Science, Education, Government Services and Religion

5 – Occupations in Art, Culture, Recreation and Sport

6 – Sales and Service Occupations

7 – Trades, Transport and Equipment Operators and Related Occupations

8 – Occupations Unique to Primary Industry

9 – Occupations Unique to Processing, Manufacturing and Utilities

All NOC codes begin with one of the 10 numbers above, which indicates the *occupational category* of all occupations.

The occupational categories are divided into major groups (the first two digits of a NOC code), minor groups (the addition of a third digit) and unit groups (the fourth digit). The NOC contains more than 500 occupational unit groups and includes more than 30,000 occupational titles. Skill level corresponds to the type and/or amount of training or education typically required to work in an occupation.

The NOC consists of four skill levels (A through D), with a fifth level (0) describing the following administrative positions:

0 – Management Occupations

A – Occupations usually require university education

B – Occupations usually require college education or apprenticeship training

C – Occupations usually require secondary school and/or occupation-specific training

D – On-the-job training is usually provided for occupations

Each of these skill levels has one or two digits associated with it:

A – 1

B – 2 or 3

C – 4 or 5

D – 6

The second digit in each NOC code signifies the skill level of each occupation. Again using the example of *cashier,* the first two digits of the NOC code can be determined. *Cashier* fits into the broad occupational category of Sales and Service Occupations, which is indicated by "6". This is the first digit of the NOC code for *cashier*. This occupation is at skill level D (on-the-job training), which is also indicated by a "6".

The first two digits of a NOC code indicate the "major group" of the classification, and ES profiles can be searched using the digits for a major group. Entering "66" when searching profiles will cause all profiles in this major group to be retrieved and presented in a list of titles. The appropriate profile can then be opened from the list.

Searching for *cashier* using "66" yields a listing of nine profiles. Scanning a list of nine titles is not an undue hardship. However, searching using other skill type and level codes can result in an unwieldy number of occupational titles from which to choose. The addition of the "minor group" code significantly reduces the number of profiles retrieved and presented.

The listing of minor groups associated with each of the major groups is available online, but can be time-consuming to look up. A handy tool for quick and easy reference is the NOC matrix (see next page).

This tool can be downloaded as a pdf document and printed. A poster-sized matrix can be ordered by sending an e-mail to publications@hrsdc-rhdsc.gc.ca and asking for a copy of the NOC matrix. The matrix is an intersecting table which provides quick reference to occupational categories, skill levels, major and minor group codes and some occupational titles. It is highly recommended for frequent users of Essential Skills profiles.

More specific information about the NOC and an online tutorial is available at www23.hrdc -drhc.gc.ca/2001/e/tutorial/splash.shtml.

APPENDIX 5

SKILL TYPE/OCCUPATIONAL CATEGORIES

Human Resources and Social Development Canada
Ressources humaines et Développement social Canada

NATIONAL OCCUPATIONAL CLASSIFICATION MATRIX 2006

The National Occupational Classification (NOC) matrix provides an overview of the classification at the minor group level. It also illustrates how the NOC is accessible on the basis of skill level, skill type, or on a combination of these two criteria. The four skill level categories are listed on the left side of the matrix, while nine skill type categories are listed across the top. The tenth skill type category (0 Management Occupations) is organized across the top of the matrix. In most cases, each matrix cell consists of a major group.

OCCUPATIONAL SKILLS LEVELS

3-DIGIT NOC CODES   MAJOR AND MINOR GROUP

	1 BUSINESS, FINANCE AND ADMINISTRATION OCCUPATIONS	2 NATURAL AND APPLIED SCIENCES AND RELATED OCCUPATIONS	3 HEALTH OCCUPATIONS	4 OCCUPATIONS IN SOCIAL SCIENCE, EDUCATION, GOVERNMENT SERVICE AND RELIGION	5 OCCUPATIONS IN ART, CULTURE, RECREATION AND SPORT	6 SALES AND SERVICE OCCUPATIONS	7 TRADES, TRANSPORT AND EQUIPMENT OPERATORS AND RELATED OCCUPATIONS	8 OCCUPATIONS UNIQUE TO PRIMARY INDUSTRY	9 OCCUPATIONS UNIQUE TO PROCESSING, MANUFACTURING AND UTILITIES
0 MANAGEMENT OCCUPATIONS	011 Administrative Services Managers 012 Managers in Financial and Business Services 013 Managers in Communication (Except Broadcasting)	021 Managers in Engineering, Architecture, Science and Information Systems	031 Managers in Health, Education, Social and Community Services 041 Managers in Public Administration		051 Managers in Art, Culture, Recreation and Sport	061 Sales, Marketing and Advertising Managers 062 Managers in Retail Trade 063 Managers in Food Service and Accommodation 064 Managers in Protective Service 065 Managers in Other Services	071 Managers in Construction and Transportation 072 Facility Operation and Maintenance Managers	081 Managers in Primary Production (Except Agriculture)	091 Managers in Manufacturing and Utilities

Major Group 00 SENIOR MANAGEMENT OCCUPATIONS
001 Legislators and Senior Management

SKILL LEVEL A Occupations usually require university education.	Major Group 11 PROFESSIONAL OCCUPATIONS IN BUSINESS AND FINANCE 111 Auditors, Accountants and Investment Professionals 112 Human Resources and Business Service Professionals	Major Group 21 PROFESSIONAL OCCUPATIONS IN NATURAL AND APPLIED SCIENCES 211 Physical Science Professionals 212 Life Science Professionals 213 Civil, Mechanical, Electrical and Chemical Engineers 214 Other Engineers 215 Architects, Urban Planners and Land Surveyors 216 Mathematicians, Statisticians and Actuaries 217 Computer and Information Systems Professionals	Major Group 31 PROFESSIONAL OCCUPATIONS IN HEALTH 311 Physicians, Dentists and Veterinarians 312 Optometrists, Chiropractors and Other Health Diagnosing and Treating Professionals 313 Pharmacists, Dietitians and Nutritionists 314 Therapy and Assessment Professionals 315 Nurse Supervisors and Registered Nurses	Major Group 41 PROFESSIONAL OCCUPATIONS IN SOCIAL SCIENCE, EDUCATION, GOVERNMENT SERVICES AND RELIGION 411 Judges, Lawyers and Quebec Notaries 412 University Professors and Assistants 413 College and Other Vocational Instructors 414 Secondary and Elementary School Teachers and Educational Counsellors 415 Psychologists, Social Workers, Counsellors, Clergy and Probation Officers 416 Policy and Program Officers, Researchers and Consultants	Major Group 51 PROFESSIONAL OCCUPATIONS IN ART AND CULTURE 511 Librarians, Archivists, Conservators and Curators 512 Writing, Translating and Public Relations Professionals 513 Creative and Performing Artists				
SKILL LEVEL B Occupations usually require college education or apprenticeship training.	Major Group 12 SKILLED ADMINISTRATIVE AND BUSINESS OCCUPATIONS 121 Clerical Supervisors 122 Administrative and Regulatory Occupations 123 Finance and Insurance Administrative Occupations 124 Secretaries, Recorders and Transcriptionists	Major Group 22 TECHNICAL OCCUPATIONS RELATED TO NATURAL AND APPLIED SCIENCES 221 Technical Occupations in Physical Sciences 222 Technical Occupations in Life Sciences 223 Technical Occupations in Civil, Mechanical and Industrial Engineering 224 Technical Occupations in Electronics and Electrical Engineering 225 Technical Occupations in Architecture, Drafting, Surveying and Mapping 226 Other Technical Inspectors and Regulatory Officers 227 Transportation Officers and Controllers 228 Technical Occupations in Computer and Information Systems	Major Group 32 TECHNICAL AND SKILLED OCCUPATIONS IN HEALTH 321 Medical Technologists and Technicians (Except Dental Health) 322 Technical Occupations in Dental Health Care 323 Other Technical Occupations in Health Care (Except Dental)	Major Group 42 PARAPROFESSIONAL OCCUPATIONS IN LAW, SOCIAL SERVICES, EDUCATION AND RELIGION 421 Paralegals, Social Services Workers and Occupations in Education and Religion, n.e.c.	Major Group 52 TECHNICAL AND SKILLED OCCUPATIONS IN ART, CULTURE, RECREATION AND SPORT 521 Technical Occupations in Libraries, Archives, Museums and Art Galleries 522 Photographers, Graphic Arts Technicians and Technical and Co-ordinating Occupations in Motion Pictures, Broadcasting and the Performing Arts 523 Announcers and Other Performers 524 Creative Designers and Craftspersons 525 Athletes, Coaches, Referees and Related Occupations	Major Group 62 SKILLED SALES AND SERVICE OCCUPATIONS 621 Sales and Service Supervisors 622 Technical Sales Specialists, Wholesale Trade 623 Insurance and Real Estate Sales Occupations and Buyers 624 Chefs and Cooks 625 Butchers and Bakers 626 Police Officers and Firefighters 627 Technical Occupations in Personal Service	Major Group 72/73 TRADES AND SKILLED TRANSPORT AND EQUIPMENT OPERATORS 721 Contractors and Supervisors, Trades and Related Workers 722 Supervisors, Railway and Motor Transportation Occupations 723 Machinists and Related Occupations 724 Electrical Trades and Telecommunications Occupations 725 Plumbers, Pipefitters and Gas Fitters 726 Metal Forming, Shaping and Erecting Trades 727 Carpenters and Cabinetmakers 728 Masonry and Plastering Trades 729 Other Construction Trades 731 Machinery and Transportation Equipment Mechanics (Except Motor Vehicle) 732 Automotive Service Technicians 733 Other Mechanics 734 Upholsterers, Tailors, Shoe Repairers, Jewellers and Related Occupations 735 Stationary Engineers and Power Station and System Operators 736 Train Crew Operating Occupations 737 Crane Operators, Drillers and Blasters 738 Printing Press Operators, Commercial Divers and Other Trades and Related Occupations, n.e.c.	Major Group 82 SKILLED OCCUPATIONS IN PRIMARY INDUSTRY 821 Supervisors, Logging and Forestry 822 Supervisors, Mining, Oil and Gas 823 Underground Miners, Oil and Gas Drillers and Related Workers 824 Logging Machinery Operators 825 Contractors, Operators and Supervisors in Agriculture, Horticulture and Aquaculture 826 Fishing Vessel Masters and Skippers and Fishermen/women	Major Group 92 PROCESSING, MANUFACTURING AND UTILITIES SUPERVISORS AND SKILLED OPERATORS 921 Supervisors, Processing Occupations 922 Supervisors, Assembly and Fabrication 923 Central Control and Process Operators in Manufacturing and Processing
SKILL LEVEL C Occupations usually require secondary school and/or occupation-specific training.	Major Group 14 CLERICAL OCCUPATIONS 141 Clerical Occupations, General Office Skills 142 Office Equipment Operators 143 Finance and Insurance Clerks 144 Administrative Support Clerks 145 Library, Correspondence and Related Information Clerks 146 Mail and Message Distribution Occupations 147 Recording, Scheduling and Distributing Occupations		Major Group 34 ASSISTING OCCUPATIONS IN SUPPORT OF HEALTH SERVICES 341 Assisting Occupations in Support of Health Services			Major Group 64 INTERMEDIATE SALES AND SERVICE OCCUPATIONS 641 Sales Representatives, Wholesale Trade 642 Retail Salespersons and Sales Clerks 643 Occupations in Travel and Accommodation 644 Tour and Recreational Guides and Casino Occupations 645 Occupations in Food and Beverage Service 646 Other Occupations in Protective Service 647 Childcare and Home Support Workers 648 Other Occupations in Personal Service	Major Group 74 INTERMEDIATE OCCUPATIONS IN TRANSPORT, EQUIPMENT OPERATION, INSTALLATION AND MAINTENANCE 741 Motor Vehicle and Transit Drivers 742 Heavy Equipment Operators 743 Other Transport Equipment Operators and Related Workers 744 Other Installers, Repairers and Servicers 745 Longshore Workers and Material Handlers	Major Group 84 INTERMEDIATE OCCUPATIONS IN PRIMARY INDUSTRY 841 Mine Service Workers and Operators in Oil and Gas Drilling 842 Logging and Forestry Workers 843 Agriculture and Horticulture Workers 844 Other Fishing and Trapping Occupations	Major Group 94/95 PROCESSING AND MANUFACTURING MACHINE OPERATORS AND ASSEMBLERS 941 Machine Operators and Related Workers in Metal and Mineral Products Processing 942 Machine Operators and Related Workers in Chemical, Plastic and Rubber Processing 943 Machine Operators and Related Workers in Pulp and Paper Production and Wood Processing 944 Machine Operators and Related Workers in Textile Processing 945 Machine Operators and Related Workers in Fabric, Fur and Leather Products Manufacturing 946 Machine Operators and Related Workers in Food, Beverage and Tobacco Processing 947 Printing Machine Operators and Related Occupations 948 Mechanical, Electrical and Electronics Assemblers 949 Other Assembly and Related Occupations 951 Machining, Metalworking, Woodworking and Related Machine Operators
SKILL LEVEL D On-the-job training is usually provided for occupations.						Major Group 66 ELEMENTAL SALES AND SERVICE OCCUPATIONS 661 Cashiers 662 Other Sales and Related Occupations 664 Food Counter Attendants, Kitchen Helpers and Related Occupations 665 Security Guards and Related Occupations 666 Cleaners 667 Other Occupations in Travel, Accommodation, Amusement and Recreation 668 Other Elemental Service Occupations	Major Group 76 TRADES HELPERS, CONSTRUCTION LABOURERS AND RELATED OCCUPATIONS 761 Trades Helpers and Labourers 762 Public Works and Other Labourers, n.e.c.	Major Group 86 LABOURERS IN PRIMARY INDUSTRY 861 Primary Production Labourers	Major Group 96 LABOURERS IN PROCESSING, MANUFACTURING AND UTILITIES 961 Labourers in Processing, Manufacturing and Utilities