

# Literacy in Québec in 2003: Highlights

## Why Is It Important to Measure the Life Skills of the Québec Population?

“A person’s knowledge and skills are important components of his or her individual well-being, but also an essential condition for the development of a society” (Pageau, 2005 : 2). This is especially true at this time, which can be characterized as a period of rapid and accelerating change.

To fully participate in societal life, people must possess solid basic skills – knowing how to read, process and analyze information so as to understand the world around them and make informed decisions. Such life skills are crucial for finding a satisfying job, taking care of one’s health, exercising good citizenship, accessing cultural products and enjoying them – in short, to benefit from a good quality of life. For example, a Québec worker in a textile factory that just closed can find a job more easily if he has solid life skills. A business that can count on a highly-skilled workforce will be in a better position to innovate and compete in world markets.

It is important for a society to constantly increase the basic skills of the adults who comprise it. Therefore, it is important to measure the skills of Québecers and compare them to those of other populations. In addition to providing an update on the skills of the adult population of Québec, the International Adult Literacy and Skills Survey (IALSS) allows us to identify the factors associated with the skills measured. The survey also identifies sub-groups that tend to have low skills or high skills. In addition, certain findings of IALSS can suggest action paths designed to improve the literacy skills of adult Québecers.

## Main goal of the Highlights – provide an overview of the skills of adult Québecers in understanding and using written information

Literacy can be defined as the “the ability to understand and use written information in everyday life – at home, at work and in society at large, in order to attain personal goals and widen one’s knowledge and capabilities” (Legendre, 2005: 841). As the *ministère de l’Éducation, du Loisir et du Sport* has stated, “Research indicates that reading skills may not only be essential, but also a prerequisite to the acquisition and development of other skills” (Pageau, 2005: 3). Beyond reading, the concept of literacy involves the capability of writing, calculating, problem-solving and using information communication technologies (ICTs).

In advance of the Québec report, which will be published in the first quarter of 2006, the highlights contained in this document are based on the Canada-wide results of the International Adult Literacy and Skills Survey (IALSS) published by Statistics Canada and Human Resources and Skills Development Canada (2005).<sup>1</sup> After a brief overview of the situation in Québec in 2003 and trends observed since the International Adult Literacy Survey (IALS) conducted in 1994, the Québec results are first compared to those of the other provinces and territories and the countries who participated in the survey. They are then examined in light of three major sets of characteristics which many studies have shown are linked to literacy skills, namely:

- Sociodemographic characteristics such as gender, age and education
- Socioeconomic characteristics such as labour force status, type of knowledge-based occupation, earnings, and participation in adult education and training
- Sociocultural characteristics such as mother tongue.

## Four Skill Domains: How Do We Interpret the Results?

- ⇒ FOUR SKILL DOMAINS were directly measured by administering tasks the respondent had to carry out:
- 1) **Prose literacy:** Understanding and using information contained in editorials, news reports, brochures, pamphlets, manuals, etc.
  - 2) **Document literacy:** Locating and using information contained in tables, diagrams, maps, etc.
  - 3) **Numeracy:** Processing and applying mathematical information present in everyday activities (balancing a chequebook, calculating a tip, etc.)
  - 4) **Problem Solving:** Goal-directed thinking and action to accomplish complex tasks for which no routine solution procedure is provided.

For each domain, the responses to the various tasks were transformed into skill scores varying from 0 to 500.

- ⇒ TWO TYPES OF AGGREGATE RESULTS have been generated from the individual skill scores:
- 1) **Mean scores**
  - 2) **Proportions** (in %): Distribution of the population according to skill level.

The below diagram presents the skill levels set for the first three domains in terms of the cutoff points on the scores? continuum.

**Skill Levels in Prose and Document Literacy, and Numeracy**

Cutoff Points	0	100	200	225	275	300	325	375	400	500
Scores										
Level	Level 1			Level 2	Level 3	Level 4	Level 5			

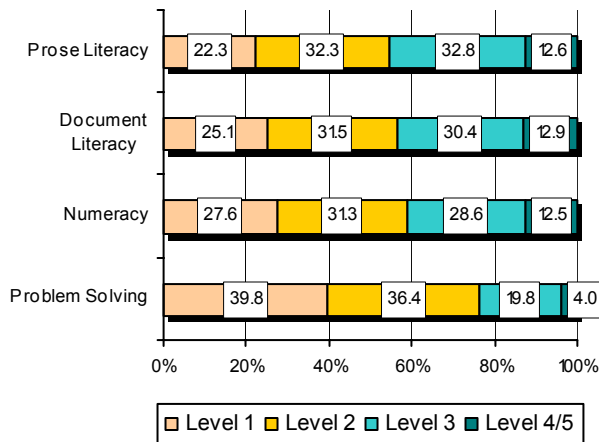
With regards to Problem Solving, the scale comprises only four levels and the cutoff points differ from those of the other domains. The findings for this domain are exploratory (Statistics Canada and OECD, 2005) and therefore only the overall results are presented in this document.

- ⇒ **INTERPRETING THE SKILL LEVELS** reveals the variable degree of difficulty of the tasks asked of the respondents:
- Level 1:** Indicates **very low-level skills** – people in this category present very low-level capabilities; it is the lowest level on the skill scales.
  - Level 2:** Indicates **low-level skills**.
  - Level 3:** This level is “deemed as a minimum for persons to understand and use information contained in the increasingly difficult texts and tasks that characterize the emerging knowledge society and information economy” (Statistics Canada and OECD, 2005: 35). It can be seen as the “desired skill threshold” for comfortably functioning in today’s society.
  - Levels 4 and 5:** These indicate **high-level skills**. Given the few numbers in Level 5, Levels 4 and 5 have been grouped together for the analyses (Level 4/5).
- ⇒ **A SIGNIFICANT DIFFERENCE** between two proportions or two mean scores was based on the comparison of confidence intervals (CIs) at a threshold of 95%, calculated using the standard errors provided by Statistics Canada. If there was no overlap between the CIs of two estimates, it can be said that there is a “significant difference” between the two. This is a conservative method, since more precise tests may reveal significant differences when there are slight overlaps.
- ⇒ **TRENDS IN SKILLS BETWEEN 1994 AND 2003** could be measured for prose and document literacy because the scales of skills were comparable between the two surveys. This was not the case for numeracy, since the definition of this in 2003 differed too much from that of “quantitative literacy” in 1994, and for problem solving, a domain that was not measured in 1994.

## In prose literacy, slightly under 50% of Québec adults attained or surpassed Level 3

Figure 1 shows that approximately 22% of the Québec population 16 years of age and over were in the **Level 1** category of prose literacy. These adults can read a short text and locate a piece of information identical or similar to that given in a question on the text. At **Level 2**, comprising 32% of the population, Québec adults were able to perform simple deductions and compare information in texts that include some distracters. People who attained **Level 3** (33%) were capable of reading a relatively long and dense text, locate many critical elements and match them through a process of simple deduction. Québec adults in **Levels 4 or 5** (13%) were able to perform complex deductions and process more abstract information located in relatively long texts containing many distracters.

**Figure 1 – Skill Levels by Domain,<sup>1</sup> Population 16 Years of Age and Over, Québec, 2003**



1. Since there was no Level 5 used for problem solving, the highest level in this domain is Level 4.

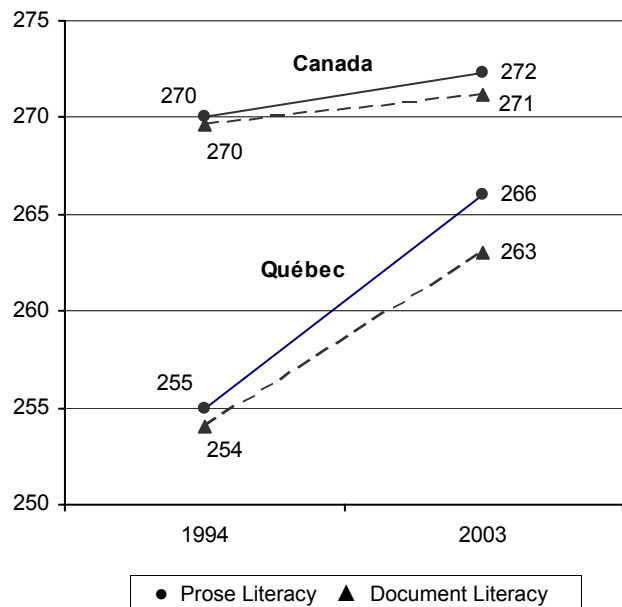
Source: International Adult Literacy and Skills Survey (IALSS), 2003.

In prose literacy and document literacy, as in numeracy, between 40% and 45% of Québecers 16 years of age and over attained or surpassed Level 3, the pivotal level in a society where information plays a crucial role. Moreover, in each of these three skill domains, around a quarter of Québec adults were in the lowest level (22%, 25% and 28% respectively). As in other jurisdictions which participated in the study, problem solving differed from the other domains in that a very high proportion of respondents were in Level 1. In addition, the majority of the population was distributed in Levels 2 and 3, namely on one or the other side of the skill threshold for comfortably functioning in today's society.

## Skills among Québec adults in prose and document literacy tended to improve between 1994 and 2003

When we compare the Québec results in 2003 with those of 1994, a significant change was observed in the mean score obtained by adults in prose literacy, going from 255 to 266 (Figure 2). However, the increase observed in document literacy was not statistically significant. These improving trends contrast with the lack of progress in mean scores across Canada. The differences between Québec and Canada-wide mean scores are narrowing, but they are still significant.

**Figure 2 – Mean Scores in Prose and Document Literacy, Population 16 Years of Age and Over, Québec and Canada,<sup>1</sup> 1994 and 2003**



1. The Yukon, Northwest Territories and Nunavut are not included in the Canada-wide results.

Source: International Adult Literacy and Skills Survey (IALSS), 2003.

Whether in 1994 or 2003, mean scores of adults 16 years of age and over remained at Level 2 in both Québec and Canada as a whole. The significant increase in the mean score of prose literacy was not enough to increase the proportion of the Québec population in this domain beyond Level 2. Indeed, as in 1994, in 2003 approximately 55% of Québec adults did not achieve above Level 2 in this domain. Although no statistically significant changes were observed in this distribution from that observed in 1994, there was a decrease in the proportion of people in Level 1 and an increase in the proportion of people in Level 4/5 (data not shown).

**Similar to some other provinces, Québec was outperformed by the Yukon and Western provinces, who had the highest mean scores in Canada**

Table 1 shows the rank of Québec relative to other jurisdictions in Canada (provinces and territories) and countries participating in the survey for people 16 to 65 years of age, the population analyzed in the survey's international report (Statistics Canada and OECD, 2005).

Québec had mean scores that were generally higher than those of the United States, Italy and the Mexican state of *Nuevo León*, and systematically lower than those of Norway. The Québec results for prose literacy and document literacy were not significantly different from those of Switzerland, and in numeracy, from those of Canada as a whole.

In each of the skill domains shown in Table 1, the Yukon, Saskatchewan, Alberta, and British Columbia had higher mean scores than those of Québec. Manitoba and Nova Scotia also had higher mean scores than Québec in prose literacy and document literacy. In general, the remaining Canadian jurisdictions were not significantly different from Québec, except Nunavut, and in numeracy, New Brunswick and Newfoundland and Labrador, who had lower scores than those of Québec. Only in document literacy did Ontario obtain a significantly higher mean score than that of Québec.

**Tableau 1- Comparison<sup>1</sup> of Mean Scores of Québec with Those of Countries Who Participated in IALSS and other Canadian Provinces and Territories, by Skill Domain, Population 16 to 65 Years of Age, 2003**

Prose Literacy		Document Literacy		Numeracy <sup>2</sup>	
Yukon	296	Norway	295	Switzerland	290
Saskatchewan	294	Saskatchewan	294	Norway	285
Norway	290	Yukon	293	Saskatchewan	284
Bermuda	290	Alberta	290	Yukon	283
Alberta	289	British Columbia	290	Alberta	281
British Columbia	288	Nova Scotia	284	British Columbia	279
Nova Scotia	286	Manitoba	283		
Manitoba	283	Canada	281		
Canada	281	Bermuda	280		
		Ontario	279		
Prince Edward Island	282	Prince Edward Island	281	Canada	272
Northwest Territories	280	Northwest Territories	280	Nova Scotia	272
Ontario	279	Switzerland	277	Manitoba	271
<b>Québec</b>	<b>275</b>	<b>Québec</b>	<b>273</b>	Ontario	270
New Brunswick	273	New Brunswick	270	Bermuda	270
Switzerland	272	United States	270	<b>Québec</b>	<b>269</b>
Newfoundland and Labrador	271	Newfoundland and Labrador	269	Prince Edward Island	269
				Northwest Territories	269
United States	269	Nunavut	234	New Brunswick	262
Nunavut	232	Nuevo León, Mexico	226	United States	261
Italy	229	Italy	226	Newfoundland and Labrador	259
Nuevo León, Mexico	226			Italy	233
				Nunavut	220

- Countries, provinces and territories with a mean score significantly higher than that of Québec
- Countries, provinces and territories with a mean score not significantly different from that of Québec
- Countries, provinces and territories with a mean score significantly lower than that of Québec

1. Countries, provinces and territories are listed in decreasing order by mean scores in each of the above comparison categories. The ranking does not imply that there was a significant difference, statistically, between each mean score observed. Moreover, this rank order may not persist in going from one comparison category to the next, since provinces and territories with small populations and samples may present higher scores than those in the highest category, but these do not significantly differ from the Québec means (overlapping confidence intervals).
2. Except the Mexican state of *Nuevo León*, that did not measure numeracy and problem solving.

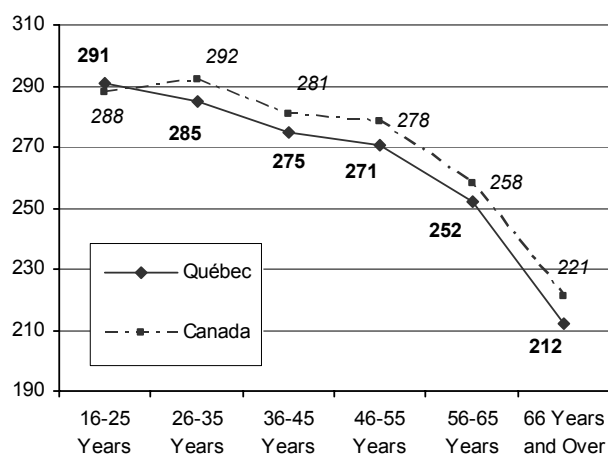
Source: International Adult Literacy and Skills Survey (IALSS), 2003.

## Sociodemographic Characteristics

### Québecers 16 to 25 years of age scored higher than their elders

In all countries participating in the survey, mean scores decreased with age. The same occurred in Québec. As shown in Figure 3, people 16-25 years of age had significantly higher scores in prose literacy than those of people 36 years of age and over. Scores decreased precipitously in people 56 to 65 years of age, and even more so in those 66 and over.

**Figure 3 – Mean Scores in Prose Literacy by Age Group, Population 16 Years of Age and Over, Québec and Canada, 2003**



Source: International Adult Literacy and Skills Survey (IALSS), 2003.

Figure 3 indicates that the performance of Québecers 16 to 25 years of age was not significantly different from that of the same age group in Canada as a whole. The mean scores of other age groups in prose literacy were also not very different from the Canadian averages. Indeed, in comparing confidence intervals, no significant statistical difference was observed, except for the 26-35 age group.

The results seem to indicate that young adults performed better. More in-depth analyses should take into account the influence of their educational level and that of their parents, since the proportion of young adults whose parents had little education has decreased over time (Statistics Canada, 2005). Furthermore, these findings raise the question of maintaining and developing the skills initially acquired in school throughout one's life, and the importance that should be ascribed to these goals.

### Differences Between Men and Women

Québec men and women differed in their scores in two of the three domains studied in adults 16 years of age and over (Table 2). On average, men obtained higher scores than women in document literacy and numeracy. However, in prose literacy, no significant difference was observed between Québec men and women. Table 2 shows that the mean scores of women varied by domain, whereas those of men were consistent across domains.

**Table 2 – Mean Scores by Gender and Skill Domain, Population 16 Years of Age and Over, Québec and Canada, 2003**

	Québec	Canada
<b>Prose Literacy</b>		
Men	266	271
Women	266	274
<b>Document Literacy</b>		
Men	268	275
Women	258	268
<b>Numeracy</b>		
Men	271	272
Women	248	254

Source: International Adult Literacy and Skills Survey (IALSS), 2003.

The higher scores in men (16 years of age and over) in document literacy and numeracy were also found in Canada as a whole. The same trend was observed in men 16 to 65 years of age in all the countries who participated in the survey (Statistics Canada and OECD, 2005). As the results in Figure 2 indicate for the population 16 years of age and over, both Québec men and women had lower scores than Canadians overall, except in numeracy, where no significant difference was observed in men.

The scores by age and gender seemed to have been influenced by respondent's educational levels in terms of literacy skills. Overall, the results can therefore be interpreted in part as being related to education when one group is compared with another. This is why it is important to analyze these results controlling for educational level, which is covered in the next section.



## Educational level – key element in literacy skills

Education was significantly correlated with literacy skills. As illustrated in Figure 4, in prose literacy there was a positive correlation between the mean score of people 16 years of age and over and their educational level. Mean scores significantly increased between each educational level, from the lowest to the highest.

In Québec, people who had not completed high school obtained a mean score of 223 points, just below the cutoff point between Levels 1 and 2 (225). For those who had obtained a high school diploma, their mean score of 267 was close to the upper cutoff point of Level 2 (275). People with a non-university post-secondary diploma managed to achieve just inside the lower cutoff point of Level 3, with a mean score of 284. The mean score of respondents with a university degree was 303 points, putting them clearly inside Level 3.

Overall, these results reveal that having a higher level of education is an advantage in terms of literacy skills. The mean scores of Québécois 16 years of age and over whose education was not higher than a high school diploma were lower than those of adults with the same characteristics in Canada. However, the scores of Québécois with an educational level higher than high school were not significantly different from those of Canadian adults with the same educational level.

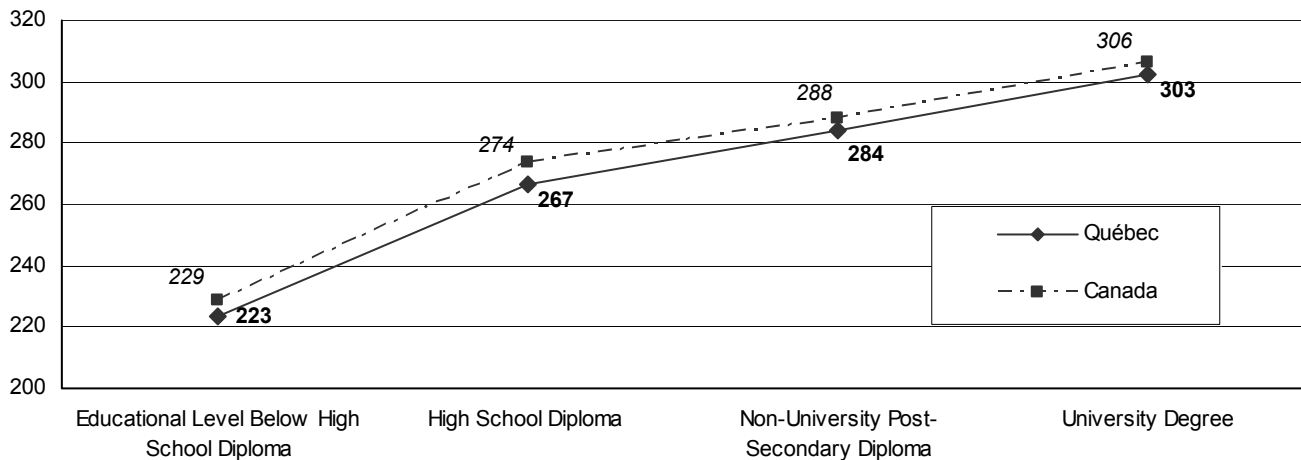
It therefore seems that the overall gap observed between Québec and Canada as a whole can in part be attributed to the lower literacy skills of people who did not pursue education above the secondary level. The capacity to equip these people with certain literacy skills does not only depend on the education system, but also on participation in activities that have a positive correlation with these skills, namely volunteerism, library use and the ongoing acquisition of knowledge (Kapsalis, 2001).

## Differences in Literacy Skills by Age and Gender When Controlling for Educational Level

Given the link between education and literacy skills, it can be suggested that the negative association between age and literacy scores can be attributed in large part to the educational level of different age groups rather than aging itself (Wilms, 1997). The same can be said in comparing men and women, given that women now tend to be more educated than men.

The variation in scores among age groups and between men and women flatten out when the results are examined by highest educational level attained (data not shown). However, as indicated in the international report (Statistics Canada and OECD, 2005), educational level does not explain all of the variations, and certain differences persist in terms of age and gender.

**Figure 4 – Mean Scores in Prose Literacy of Population 16 Years of Age and Over by Highest Level of Education<sup>1</sup> Attained, Québec and Canada, 2003**



1. The five educational levels used by Statistics Canada and HRSDC were changed to four by incorporating their third and fourth levels, the means of which were not significantly different, under “Non-University Post-Secondary Diploma.” This includes pre-university and technical diplomas (DECs) granted by CÉGEPs (junior colleges), vocational and trade school certificates, non-university certificates or diplomas, and qualifying programs for university in any other type of institution.

Source: International Adult Literacy and Skills Survey (IALSS), 2003.

## Socioeconomic Characteristics

### Employed adults on average had scores in Level 3, considered a skill level needed to comfortably function in today's society

The results by labour force status (Table 3) show that Québec adults who had a job had mean scores of 277 in numeracy and approximately 280 in prose literacy and document literacy, which ranked them above the cutoff point for Level 3 (275 points).

The scores of employed adults in Québec were significantly lower than those of employed adults in Canada as a whole in prose literacy and document literacy, whereas their mean score in numeracy was not significantly different.

Unemployed Québec adults had a mean score of approximately 250 points in each of the three domains examined. These scores were significantly lower than those of Canada as a whole in prose literacy and document literacy, but the data did not show any significant difference in numeracy scores. Whether in Québec or Canada as a whole, unemployed people were on average in skill Level 2. These people may therefore be at a disadvantage in terms of entering or re-entering the labour market.

Table 4 compares the mean scores of employed Québecers by type of knowledge-based occupation, ranked in order related more or less to the specialized cognitive demands required of the job. The table shows that people who worked in low-skill Services- and Goods-related occupations had the lowest mean scores in the

**Table 3 – Mean Scores in Skill Domains by Labour Force Status, Population 16 to 65 Years of Age, 2003**

Skill domain and labour force status	Québec	Canada
<b>Prose literacy</b>		
Employed	281	286
Unemployed	252	266
Not in the labour force	266	267
<b>Document literacy</b>		
Employed	280	287
Unemployed	250	265
Not in the labour force	259	265
<b>Numeracy</b>		
Employed	277	278
Unemployed	249	258
Not in the labour force	253	255

Source: International Adult Literacy and Skills Survey (IALSS), 2003.

three skill domains analyzed. These scores, ranging from 254 to 266, were clearly in Level 2, whereas nearly all the mean scores for people working in Information, Management and Knowledge occupations were in Level 3.

**Table 4 – Mean Scores by Type of Knowledge-Based Occupation, by Skill Domain, Labour Force Population<sup>1</sup> 16 to 65 Years of Age, Québec, 2003**

Type of Knowledge-Based Occupation	Prose Literacy	Document Literacy	Numeracy
Knowledge experts	310	313	315
Managers with a variety of professional skills	285	284	285
High-skilled information workers	298	297	293
Information	286	282	274
Services	266	261	254
Goods	256	259	260

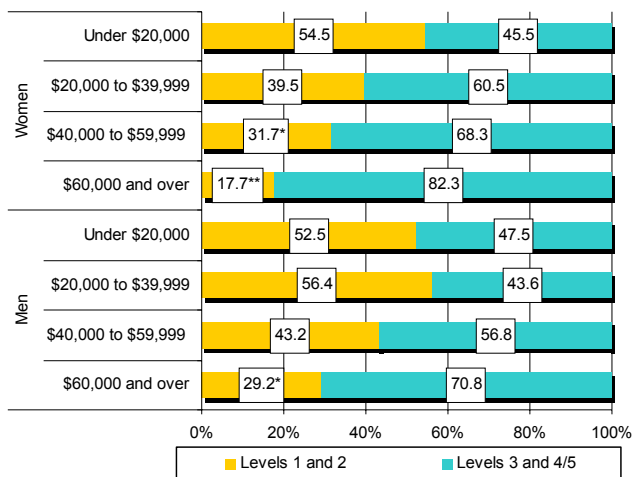
1. Refers to people who were either employed or unemployed (looking for work).

Source: International Adult Literacy and Skills Survey (IALSS), 2003.

## The higher the earnings, the higher the level of prose literacy – more conclusive in women than men

The association between employment income and skills level is clearly indicated in Figure 5, especially in women. Higher earnings seem to be related to higher levels of prose literacy. This is especially manifest when earnings were \$60,000 and more a year.

**Figure 5 – Prose Literacy Levels by Annual Earnings and Gender, Labour Force Population<sup>1</sup> 16 to 65 Years of Age, Québec, 2003**



1. Refers to people who were either employed or unemployed (looking for work)

\* Coefficient of variation between 15% and 25%; interpret with caution.

\*\* Coefficient of variation higher than 25%; imprecise estimate for information purposes only.

Source: International Adult Literacy and Skills Survey (IALSS), 2003.

When they earned under \$20,000 a year, women and men showed no significant difference – slightly more than half scored just below Level 3 in prose literacy. However, when their income was \$20,000 and more, women tended to score in Levels 3 and 4/5 more than men. For example, this was the case for 82% of women who earned \$60,000 or more a year, compared to 71% of men in the same income level. These results suggest that the prose literacy skills of men and women may not be equally recognized in terms of remuneration in the labour market.

## Québec adults who had participated in organized forms of adult education and training had higher mean scores in literacy

In Québec, approximately 43% of adults 16 to 65 years of age participated in organized forms of adult education and training. This means that during the year preceding the survey, they were registered in a program leading to a specific certificate or diploma, or had taken at least one non-program course or other kind of training (workshops, professional conferences, etc.). Approximately 12% of people 16 to 65 years of age participated in a program of studies and 24% in a course (data not shown).

Overall, adults who had participated in organized forms of adult education and training (programs, courses or other) during the year preceding the survey had higher scores on average than those who had not done so (Table 5). However, no significant difference was observed in the results between programs or courses.

**Table 5 – Mean Scores by Type of Participation in Organized Forms of Adult Education or Training, Population 16 to 65 Years of Age, Québec, 2003**

	Prose Literacy	Document Literacy	Numeracy
None	260	257	254
Total participation <sup>1</sup>	290	288	284
Program	292	284	284
Course	290	290	286

1. Participated in a program of studies, course or other type of training (workshops, professional conferences, etc.) during the year preceding the survey.

Source: International Adult Literacy and Skills Survey (IALSS), 2003.

As indicated in Table 5, there was a significant association between participation in organized forms of adult education and training and mean scores in the three skill domains analyzed. However, it cannot be concluded that this is a cause-and-effect relationship, in other words, that adult education has a positive influence on literacy. Indeed, there is a higher probability that adults whose skills are in Level 3 or higher will participate in such forms of adult education and training. As noted in the survey's international report (Statistics Canada and OECD, 2005), a high proportion of adults with low basic skills have difficulty gaining access to organized forms of adult education and training. However, this situation varies considerably by country, which reveals differences among jurisdictions in terms of policies on adult learning.



## Sociocultural Characteristics

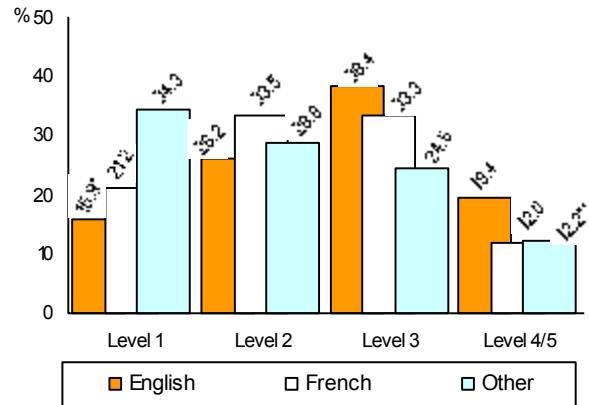
### Francophones scored lower than anglophones, but for an equal level of education, there was no significant difference between these language groups

Figure 6 shows that a higher proportion of francophones<sup>2</sup> scored lower in literacy skills (Level 1 and 2) compared to anglophones. This was the case in prose literacy, with 55% of francophones versus 42% of anglophones having scored in Level 1 or 2. However, the data did not show any significant difference between the two language groups in terms of those scored in Level 3, the level judged suitable in terms of coping with the accelerating demands of today's labour market. The situation was different, however, for Level 4/5, which had a higher proportion of anglophones compared to francophones.

The data also showed that the proportion of allophones<sup>3</sup> in Level 1, approximately 35%, was much higher than that of francophones and anglophones. This can be explained in part by the fact that the task booklets were written in English and French, which could have led to difficulties in comprehension on the part of a certain number of allophones, especially the least educated.

As shown in Figure 7, the mean scores of francophones and anglophones with the same educational level were very close. Indeed, no significant difference was observed between the two language groups when controlling for education attainment. Since a higher proportion of francophones had no diploma and fewer university degrees than anglophones, the education factor may in large part explain the differences observed between these groups in the overall analysis.

**Figure 6 – Prose Literacy Levels by Mother Tongue, Population 16 Years of Age and Over, Québec, 2003**

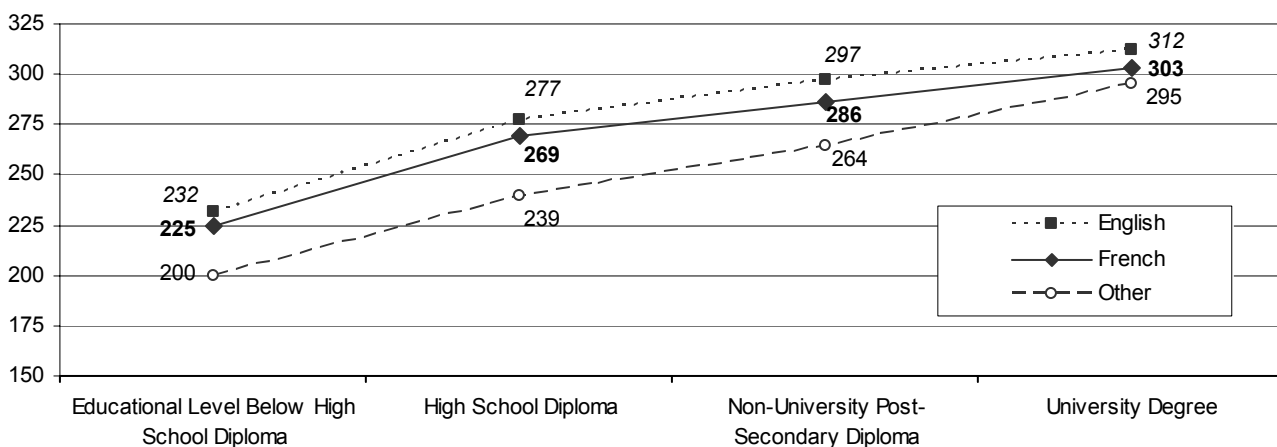


\* Coefficient of variation between 15% and 25%; interpret with caution.  
 \*\* Coefficient of variation higher than 25%; imprecise estimate for information purposes only.

Source: International Adult Literacy and Skills Survey (IALSS), 2003.

Even when controlling for educational level, the differences remain between allophones and the other two language groups. Allophones had lower mean scores than those of anglophones and francophones, except among those who had university degrees. At the highest level of education, allophones showed no significant difference with the other two language groups.

**Figure 7 – Mean Scores in Prose Literacy by Mother Tongue and Highest Level of Education Attained,<sup>1</sup> Population 16 Years of Age and Over, Québec, 2003**



1. The six educational levels used by Statistics Canada and HRSDC were reorganized for purposes of consistency with Figure 4. Non-university post-secondary studies includes diplomas (DECs) granted by CÉGEPs (junior colleges), vocational or trade school certificates, non-university certificates or diplomas, and qualifying programs for university in any other type of institution.

Source: International Adult Literacy and Skills Survey (IALSS), 2003.

## **Québec adults seem to be on a path of improving their literacy skills – it is important to persist on this path of progress**

As for all the countries participating in the survey, the first observation that can be made on the findings is that “many adults have difficulties coping with literacy and numeracy related demands that are common in modern life and work” (Statistics Canada and OECD, 2005 : 31). In Québec, a sizable part of the population did not achieve Level 3 in the skill domains surveyed. This was the case in prose literacy for 55% of adults 16 years of age and over, which represents approximately three million people, of which therefore 1.3 million are at a very low level. Given that Level 3 constitutes a kind of critical threshold to comfortably function in today’s society, efforts must be continued, indeed intensified, to foster increased skill levels in all the domains.

However, Québec seems to be on the right road. Prose and document literacy skills seem to have improved since 1994, although much work remains to be done to reach the Canadian average. However, it is premature to comment on the causes of this improving trend.

Has the Québec education system become more effective? Is progress due to efforts put into basic adult education, including literacy programs, and into workplace training? One thing is certain, the findings illustrate the importance of fostering an increase in educational attainment, a factor positively associated with literacy skills. Beyond initial training, it is also important to monitor the maintenance and development of acquired skills.

Generation replacement is certainly contributing to improved literacy skills in general, but the younger generation, who scored higher than their elders in the skill domains, need to have higher skills in such a rapidly-evolving world. Educational attainment and ongoing knowledge acquisition therefore have become increasingly relevant personal and societal goals.

The findings also reveal certain problematic situations for adults who were categorized in the lowest skill levels (1 and 2). For example, the unemployed seem to be in a precarious situation in terms of their chances of finding work, given their average ranking on the skill scales. With a more thorough understanding of the factors associated with low literacy levels, it will be possible to better define the needs of certain groups, notably in basic adult education.

This overview of literacy in Québec in 2003 will be complemented by the full report to be published in the first quarter of 2006, which will examine the findings of the survey in detail and identify the characteristics of specific sub-groups. The analyses in this report will help contribute to the evaluation of programs and services that can be provided and/or adjusted in order to maintain and improve the literacy and life skills of the Québec population.

### **IALSS and its Participants**

The International Adult Literacy and Skills Survey (IALSS) is used to designate the Canadian component of the Adult Literacy and Life Skills Survey (ALL), a joint project of the Government of Canada, the US National Center for Education Statistics (NCES), and the Organization for Economic Cooperation and Development (OECD). Statistics Canada manages this international survey. The psychometric analysis of the literacy assessments, the scoring practices and the skill levels were vetted by Educational Testing Services (ETS) in the United States. The international survey team produced a report co-published by the OECD and Statistics Canada (2005), in which the findings for the seven countries who participated in the first wave of data collection (Bermuda, Canada, Italy, Norway, Mexico [state of *Nuevo León*], Switzerland and the United States) were analyzed and compared.

The national operations of IALSS, managed by Statistics Canada, are funded by Human Resources and Skills Development Canada (HRSDC). The *Institut de la statistique du Québec* (ISQ) worked in close collaboration with Statistics Canada by participating in the translation, adaptation and revision of the assessment tasks administered to francophone respondents.

The Québec Ministries of Education, Recreation and Sport, Employment and Social Solidarity, and Culture and Communications (*ministères de l'Éducation, du Loisir et du Sport [MELS], de l'Emploi et de la Solidarité sociale [MESS] et de la Culture et des Communications [MCC]*) funded an over-sample of the Québec adult population to provide more precise estimates and more detailed analyses of the literacy skills of certain sub-groups. These three Ministries also mandated the ISQ to produce a Québec report of the IALSS survey, which will be made public in the first quarter of 2006, at the same time as other provincial reports will be published by Statistics Canada.

## Methodology in Brief

**The first wave of IALSS data collection**, supervised and conducted by Statistics Canada, **took place between March and September 2003**. It was conducted using in-home interviews that required **three measurement instruments**:

**A standard background questionnaire** covering many topics – background and demographic information, financial economic? and employment situation, educational attainment of the respondent and his/her parents, reading activities at home and at work, participation in adult education and training, use of information communication technologies, etc.

**A core task booklet** containing six relatively simple tasks was administered to the respondent. If the respondent did not pass these tasks, the interview was terminated.

**A main task booklet containing about 45 items<sup>1</sup>** divided into two blocks related to prose literacy, document literacy, numeracy and problem solving. No time limit was imposed on the respondent to complete the booklet.

**The target population was the Québec civilian population 16 years of age and over** at the time of data collection. Excluded were long-term institutional residents, members of the armed forces, people living on Indian Reserves and residents of sparsely populated regions.

**The sample frame was the Canadian Census of Population and Housing database, reference date May 15, 2001**. A multi-stage probability sample design, stratified geographically by population density, was used to select the sample. In each region, the sample frame was also ordered by highest educational level prior to sample selection to ensure that every educational range was represented.

**At the outset, 7,327 Québec adults 16 years of age and over were selected at random**, which constitutes an oversample compared to the sample frame of Statistics Canada. Given that the sample frame was two years old, **939 respondent households were declared** out of scope for the study population by Statistics Canada. The overall **response rate was 65%**, which resulted in a **sample of 4,166 respondents for analysis**.

1. Examples of some tasks are shown on page 12.

## Endnotes

1. Virtually all of the findings reported in this document are drawn from analyses conducted by Statistics Canada and Human Resources and Skills Development Canada. For details on the analytical procedures and standards, the reader is invited to consult the national report (Statistics Canada and HRSDC, 2005).
2. The language groups were defined by mother tongue (French, English or other), namely the first language learned and still understood by the respondent. The category “English and French”, which provided imprecise estimates because of the low numbers (less than 1% of Québec adults 16 years of age and over) was not included in the tables published by Statistics Canada and HRSDC.
3. The word “allophones” describes people whose mother tongue is other than French or English.

## References

- KAPSALIS, C. (2001). *Catching Up with the Swedes: Probing the Canada-Sweden Literacy Gap*, Hull (Qué.), The National Literacy Secretariat, Human Resources Development Canada, 57 p.
- LEGENDTRE, R. (2005). *Dictionnaire actuel de l'éducation*, 3<sup>e</sup> éd., Montréal, Guérin Éditeur, 1,584 p.
- MURRAY, T. S., Y. CLERMONT and M. BINKLEY (ed.) (2005). *Measuring Adult Literacy and Life Skills: New Frameworks for Assessment*, Ottawa, Statistics Canada, 408 p. (Catalogue no.: 89-552-MIE, no. 13).
- PAGEAU, D. (2005). « L'Enquête internationale sur l'alphabétisation et les compétences des adultes (EIACA) », *L'information continue Express*, Ministère de l'Éducation du Québec (MEQ), n° 7, mars, p. 1-4.
- STATISTICS CANADA (2005). Adult Literacy and Life Skills Survey 2003, *The Daily*, May 11, 5 p.
- STATISTICS CANADA and HUMAN RESOURCES AND SKILLS DEVELOPMENT CANADA (2005). *Build on our Competencies. Canadian Results of the International Adult Literacy and Skills Survey 2003*, Ottawa, Minister of Industry, 242 p. (Catalogue no. 89-617-XIE).
- STATISTICS CANADA, HUMAN RESOURCES DEVELOPMENT CANADA and NATIONAL LITERACY SECRETARIAT (1996). *Reading the future. A portrait of literacy in Canada*, Ottawa, Minister of Industry, 128 p. (Catalogue no. 89-551-XPE).
- STATISTICS CANADA and ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT (2005). *Learning a Living. First Results of the Adult Literacy and Life Skills Survey*, Ottawa and Paris, OECD Publishing, 332 p.
- WILLMS, J. D. (1997). *Literacy skills of Canadian youth*, Ottawa, Statistics Canada, 37 p. (Catalogue no. 89-552-MIE, no. 1).

## Examples of Level 1 and Level 2 Tasks

### Prose Literacy

## MEDCO ASPIRIN

500

**INDICATIONS:** Headaches, muscle pains, rheumatic pains, tooth-aches, earaches. **RELIEVES COMMON COLD SYMPTOMS.**

**DOSAGE:** ORAL. 1 or 2 tablets every 6 hours, preferably accompanied by food, for not longer than 7 days. Store in a cool, dry place.

**CAUTION:** Do not use for gastritis or peptic ulcer. Do not use if taking anticoagulant drugs. Do not use for serious liver illness or bronchial asthma. If taken in large doses and for an extended period, may cause harm to kidneys. Before using this medication for chicken pox or influenza in children, consult with a doctor about Reyes Syndrome, a rare but serious illness. During lactation and pregnancy, consult with a doctor before using this product, especially in the last trimester of pregnancy. If symptoms persist, or in case of an accidental overdose, consult a doctor. Keep out of reach of children.

**INGREDIENTS:** Each tablet contains 500 mg acetylsalicylic acid.  
Excipient c.b.p. 1 tablet.  
Reg. No. 88246

0

67736 11079

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1600 Industrial Blvd., Montreal, Quebec H9J 3P1

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**LEVEL 1 TASK:**

What is the maximum number of days you should take this medicine?

### Document Literacy

### FEW DUTCH WOMEN AT THE BLACKBOARD

There is a low percentage of women teachers in the Netherlands compared to other countries. In most of the other countries, the majority of teachers are women. However, if we include the figures for inspectors and school principals, the proportion shrinks considerably and women are in a minority everywhere.

74.8	72.0	63.1	61.6	58.8	58.5	57.4	51.2	41.2	38.1
Luxem- bourg	Italy	France	Ireland	United Kingdom	Spain	Belgium	Greece	Den- mark	Nether- lands

Percentage of women teachers (kindergarten, elementary, and secondary).

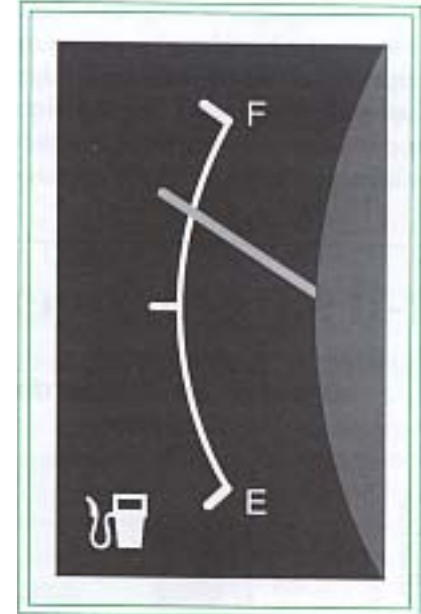
**LEVEL 1 TASK:**

What is the percentage of women in the teaching profession in Greece?

**LEVEL 2 TASK:**

In which country, other than the Netherlands, are women in the teaching profession in the minority?

### Numeracy



**LEVEL 2 TASK:**

The gas tank in this car holds 48 liters. About how many liters of gas remain in the tank?

(Assume the gas gauge is accurate).

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**Suggested reference:**

BERNÈCHE, Francine and Bertrand PERRON (2005). *Literacy in Québec in 2003: Highlights, International Adult Literacy and Skills Survey, 2003*, Québec, Institut de la statistique du Québec, 12 p.