## International Adult Literacy Survey

Literacy and Literacy Training of Francophones in Canada: Results of the International Adult Literacy Survey (IALS)

Serge Wagner
In collaboration with:
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Serge Wagner: Université du Québec à Montréal<br>In collaboration with:<br>Jean-Pierre Corbeil: Statistics Canada<br>Pierre Doray and Évelyne Fortin: Université du Québec à Montréal

The International Adult Literacy Survey (IALS) was a 22 country initiative conducted between 1994 and 1998. The Canadian component of the IALS study fielded in the fall of 1994, was primarily funded by the Applied Research Branch and the National Literacy Secretariat of Human Resources Development Canada.

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## Foreword

Literacy refers to proficiency in reading and writing a language. In Canada, a constitutionally bilingual country, the vitality of the two major language groups depends to a large extent on their literacy in their mother tongue.

The Fédération canadienne pour l'alphabétisation en français (FCAF), whose membership includes many people with an interest in literacy, has undertaken this study of the literacy of francophones to gain a better understanding of their reading and writing habits and to meet their needs more effectively. For all intents and purposes, the project ended in early 1999 and does not include any literature published since then on the subject.

We hope that the information in this report will advance the understanding of francophone literacy. We also hope that interested parties will take note of the information and that decision-makers will recognize the importance of literacy so that appropriate measures can be taken to promote literacy in French.

By analyzing the International Adult Literacy Survey data for French native speakers, FCAF has attempted to shed light on their particular situation. By taking possession of the written language, Canada's francophones are building their future.

## Introduction

In 1994, Canada and some other industrialized countries took part in the International Adult Literacy Survey (IALS) under the auspices of the Organization for Economic Cooperation and Development (OECD) and other partners. The survey's objective was to produce literacy profiles that would be comparable for various social groups and various countries. The IALS also made it possible to compare Canadian literacy levels with data collected in the 1989 Survey of Literacy Skills Used in Daily Activities (LSUDA).

## Situation of Francophones

The Canadian report, Reading the Future: A Portrait of Literacy in Canada (Statistics Canada, 1996), does not go into detail on the dimensions of literacy in relation to respondents' sociolinguistic background. Hence it provides no information that can be used to differentiate the characteristics of francophone literacy in Canada from the characteristics of literacy in French. The distinction between the two forms of literacy is important for Canada's Francophones. One refers to the reading and writing skills of individuals whose mother tongue is French, no matter what language they used (English or French) in responding to the survey. The other concerns the skills and characteristics of people who took the survey's tests in French.

Linguistic duality is a fundamental characteristic of Canada and, in the context of the advent of literate societies (also known as knowledge or information societies), the mastery of written communication (in French) by the francophone community is a prerequisite for its current vitality and its future. Originally, the FCAF wanted to explore the demographic, social and economic characteristics of francophones, based on their level of literacy. That proved impossible, however, because the French mother tongue sample was too small. As a result, francophone literacy had to be examined globally first, and then by considering two other factors: (1) the literacy practices and behaviours of francophones at home and at work; (2) the literacy acquisition process, i.e., the factors that contribute to literacy in the language. ${ }^{1}$

## "Alphabétisme" or "littératie"?

While the French versions of recent major surveys on the subject have referred explicitly to the concept of "alphabétisation," a shift in meaning has occurred not only in those surveys but especially in literacy-related concepts and in practices.

That shift is from learning to read and write to using those skills. While the term "alphabétisation" commonly refers to the process of teaching or learning to read and write, there was no term in French for the skills or abilities required for literacy, or for the state of literacy in an individual or in society. In recent years, that gap has been filled by two newly minted terms: "alphabétisme" and "littératie". In the 1996 Canadian report, federal officials decided to use "alphabétisme" since it was more widely known and accepted in Canada's francophone community. In contrast, the term used in the French version of the international report was "littératie".

In the French version of this study, we use "alphabétisme", since it is still in current use by French speakers. However, the term "littératie" has also become widespread.

## Structure of the report

Chapter 1 examines the importance of literacy in the industrialized countries, describing the issues for francophone communities and reviewing the available data. Chapter 2 is about methodology. The survey's main features, some of the key variables used to define literacy and literacy training, and the limitations of the francophone sample are presented, along with the methodological options chosen. Chapter 3 paints a general picture of francophone literacy in Canada. Chapter 4 attempts to make sense of a very specific situation: literacy in the context of language transfers to English. Chapter 5 looks at the process of producing literacy and the literacy training of francophones, while attempting to sort out the impact that various social and cultural factors have on literacy.

On a number of occasions, we have differentiated between francophones in Quebec and francophones in other provinces, an important distinction since the former live in a mostly French environment while the latter reside in provinces where the majority of people are anglophones. We have also compared the literacy of francophones with that of anglophones and, in some cases, allophones, in order to show how francophones measure up.

In the conclusion, we have reviewed the study's highlights and made a few observations on the IALS data and the next survey.

## Chapter 1

## Literacy and Literacy Training of Francophones: Overview

### 1.1 Literacy and literacy training

In Canada as in most industrialized countries, literacy has become a major social issue. In the early 1980s, as investment in adult education grew, the campaign against illiteracy expanded rapidly. The movement was part of a broader mobilization of resources against inequalities in rights and opportunities and formed a cultural component of the general campaign against poverty (Hautecœur, 1996). Thus, the ideals that shaped Canadian educational reforms in the late 1950s and early 1960s were revived by various literacy advocates.

With the growth in literacy training came the need to measure the extent of illiteracy and determine how many people were affected. One method was based on educational attainment: people with less than five years of education were considered completely illiterate. This quickly led to the establishment of a related category, functionally illiterate (people who have persistent difficulties in reading and writing), which empirically meant people who had between five and nine years of education. In both cases, the correlation with educational attainment was the key criterion; any individual with less than a certain level of education was categorized as "illiterate".

Gradually, first in the United States, then in Canada, and finally in many other industrialized countries, people came to recognize the important of assessing reading, writing and arithmetic skills directly in the context of daily life. In the early 1990s, Statistics Canada incorporated the notion of skill into its definition (and measurement) of literacy (Statistics Canada, 1991a, 12). Literacy, a relatively new concept, was defined in the IALS as the ability to understand and use "printed and written information to function in society, to achieve one's goals, and to develop one's knowledge and potential" (OECD and Statistics Canada, 1995, 14).

An important characteristic of this definition is that instead of treating reading and writing skills as generic or disembodied concepts, it relates them to the linguistic, cultural, economic and social contexts in which people live. Thus, literacy skills are included where they belong as part of a set of communications skills, which in turn form part of a larger set of cognitive, technical, psychological and interactional skills (Hautecœur, 1996:74). It should be noted that this concept of literacy goes beyond merely perceiving the written word to include understanding and interpreting it as it fits into a particular linguistic and cultural context, and refers to shared social, economic and symbolic universes.

Hence, we cannot study literacy in isolation from the historical context of a country or a sociolinguistic group. Low literacy levels among the citizens of a nation are a social fact, not just an individual fact: socio-historical, political and economic conditions have a direct bearing on a population's level of literacy. The type of illiteracy that emerges and grows within a linguistic or cultural minority group in a particular area is different in many respects from the type of illiteracy affecting the country's majority group. This difference in literacy may be an effect of the minority situation itself (Wagner, 1991b, 11). It has been argued that English-French bilingualism might prove to be a "subtractive bilingualism" for some minority groups (Lambert, 1968), disrupting the acquisition of proficiency in both the first and second language.

Literacy is the result of a process that begins in early childhood and changes throughout one's life through reading and writing situations encountered at school, at work, in leisure activities and with friends and relatives. Literacy skills are not acquired for life. If necessary, people may resort to literacy, basic education or refrancization practices.

### 1.2 Francophone literacy issues

In descriptions of the International Adult Literacy Survey (IALS), much emphasis is placed on the economic importance of literacy. It seems to be important for people to acquire basic skills and enhance them throughout their lives to ensure stable employment (Statistics Canada, 1996). Important as they are, however, the economic goals cannot hide the fact that literacy is fundamentally a means of individual (not just employment-related) advancement, a tool for political and social integration, and a vector of cultural identity. In this respect, the literacy of francophones in Canada is not entirely different from the literacy of other Canadians; the issues are the same. However, literacy in French is a strategic factor in the transmission of French language and culture from one generation to the next and in the integration of new Canadians.

### 1.2.1 Social integration issues

Literacy is essential if one is to avoid exclusion in a technologically advanced society. A study by the Canadian Commission for UNESCO found that most print information for adults in Canada was written for readers with at least a Grade 10 education (Thomas, 1982). Without an adequate level of literacy, a person is at a disadvantage in many day-to-day situations: shopping, banking, transportation, exercising one's civic rights and so on (Boucher, 1989). This can lead to difficulties in communication and even to self-exclusion or social withdrawal. Marginalized people also have poorer access to the labour market and are usually trapped in insecure, low-paying jobs with poor working conditions. And when such people manage, despite their low literacy level, to find relatively stable, permanent employment, positions requiring greater use of language are often out of reach. Occupational illiteracy has social costs: work-related illness and accidents, unemployment and greater dependence on social assistance.

Moreover, less literate people tend to participate less in democratic life. Difficulties in accessing information often limits social participation. Limited skills in obtaining information and expressing oneself frequently limit one's ability to stand up for one's rights. Conversely, a degree of functional literacy facilitates an individual's integration into the community and the workplace. Evaluation of literacy programs shows that participants make progress not only in reading and writing but also in other aspects of their lives (Thomas, 1990).

Literate people are better able to communicate with friends and relatives and to pass reading and writing skills on to their children. This is particularly important for the intellectual development of children, even before they start school. Once at school, they are able to consolidate their skills and learn new things. But school cannot compensate for a linguistic deficit accumulated in early childhood. Parents who have the necessary literacy skills will set an example for their children, transmitting their knowledge of and attitudes toward the written language "naturally," and supporting the children in their schooling.

Yet the benefits of literacy must be seen in context. Literacy is often a necessary condition for better integration into society and the labour market, but it is not always a sufficient condition. Although it is frequently the case, being literate does not necessarily improve one's job situation, increase one's income or change one's relations with others. The socio-economic processes that govern access to employment do not melt away, and psychosocial factors remain in play.

In short, it is important not to minimize the negative impact of illiteracy, nor to make literacy into a panacea. Nevertheless, it is true that illiteracy is a factor in producing social marginality.

### 1.2.2 Culture and identity issues

The socio-cultural and identity issues are also directly related to literacy. There is a fundamental link between language, culture and identity. To fully exist, an individual must share in the cultural (and linguistic) capital of a community. And it is through the medium of a particular language that an individual's relationship to himself or herself and to the world is expressed and embodied.

In addition to fulfilling the practical functions of communication, language marks the identity of an individual and the society of which he or she is a member. Identity is forged by the words, structures, turns of phrase and unique images of a language, as shaped by a group of human beings living in a particular territory. Each language possesses an exclusive character closely tied to the people who use it. In that respect, "being literate" is not just a matter of being proficient in the written language; it also means being fluent in the spoken language and, in particular, having the underlying cultural background. Literacy is a tool for mastering a culture's symbolic universe.

As a minority group in Canada and North America, the francophone community has an even greater need for "proficiency in its language". The level of literacy has major consequences on the transmission of cultural values, and having the words to express one's thoughts makes it possible to account for one's reality as a community.

Language transmission and learning begin in the family and then continue throughout a person's life. Nevertheless, school is the critical period and institution for consolidating oral communication skills, learning to write and do arithmetic and, in a minority situation, strengthening the sense of socio-cultural belonging. For generations, French-Canadians have not been as well educated as English-Canadians. In addition, many francophones have long had little or no access to unilingual French schools. In the mid-1960s, French-Canadians became more conscious of the need for collective remedial education. While substantial progress has been made in the last few decades, the disparity between anglophone and francophone adults persists.

In fact, Table 1.1 contains two significant figures concerning the relationship between educational attainment and literacy. The proportion of francophones who have less than a Grade 9 education - the traditional threshold of functional literacy - is 2.6 times higher than the proportion of anglophones. The gap is smaller among those with a university education, but francophones are still five percentage points behind anglophones and six points behind allophones.

Table 1.1 Population aged 15 and over (with percentages) not attending school full time, by mother tongue* and two levels of schooling, Canada, 1996 Census

|  | Total Canada | $\%$ | English | $\%$ | French | $\%$ | Other | $\%$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Education | $\mathbf{2 0 , 0 8 5 , 9 3 5}$ | $\mathbf{1 0 0}$ | $\mathbf{1 1 , 5 4 1 , 2 0 5}$ | $\mathbf{1 0 0}$ | $\mathbf{4 , 8 2 8 , 8 8 0}$ | $\mathbf{1 0 0}$ | $\mathbf{3 , 7 1 5 , 8 5 0}$ | $\mathbf{1 0 0}$ |
| Grade 9 or less | $2,710,960$ | 14 | 878,485 | 8 | 968,140 | 20 | 864,335 | 23 |
| University | $4,463,260$ | 22 | $2,678,640$ | 23 | 876,305 | 18 | 908,315 | 24 |

* Francophones, anglophones and allophones include people who reported more than one mother tongue.

Another factor that may affect the literacy of francophones is the fact that they make up a shrinking proportion of Canada's total population: they accounted for $29 \%$ of the population in 1951 and $24 \%$ in 1996 (Statistics Canada, 1999). This decline is due to low population growth, which in turn is attributable to low fertility, an immigration rate well below their relative population size, and the weak attraction of the French language. Many French-Canadians live in a setting where the language of work, transportation and commerce is not their mother tongue. There is significant anglicization outside Quebec and New Brunswick, as indicated by the language continuity index based on 1996 Census data (Table 1.2). The lower the index is, the higher the rate of anglicization. Finally, since the language continuity index is low and the fertility of francophones outside Quebec is slightly lower than the fertility rate for Canada as a whole, ${ }^{2}$ the increase in the number of young francophones educated in their mother tongue is slow in spreading through the adult population.

These circumstances work against the use of French in daily life, both at work and elsewhere. Moreover, in communities where English is predominant, francophones face two simultaneous demands: they have to learn English, and they have to maintain and transmit their French language and culture.

Paradoxically, while a third of minority francophones adopt English as the language they use most often, not all of them are literate in English. As Boucher (1989) points out, many linguists share the view that learning a second language presupposes proficiency in one's mother tongue. Hence, it is plausible that many francophones' limited proficiency in English is due to gaps in their knowledge of their mother tongue. In some cases, their "bilingualism" probably exacerbates their communication problems. In an environment where the dominant language is English, acquiring literacy in French may make it easier to learn the other language.

Table 1.2 Population with French as mother tongue and home language, by province and language continuity index, ${ }^{1}$ Canada, 1996 (20\% data)

| Province / Territory | Mother tongue | Home language | Index |
| :--- | ---: | ---: | ---: |
| Newfoundland | 2,275 | 875 | 0.38 |
| Prince Edward Island | 5,555 | 2,910 | 0.52 |
| Nova Scotia | 35,040 | 19,970 | 0.57 |
| New Brunswick | 239,730 | 219,385 | 0.92 |
| Quebec | $5,700,150$ | $5,770,915$ | 1.01 |
| Ontario | 479,285 | 287,190 | 0.60 |
| Manitoba | 47,665 | 22,015 | 0.46 |
| Saskatchewan | 19,075 | 5,380 | 0.28 |
| Alberta | 52,375 | 15,725 | 0.30 |
| British Columbia | 53,035 | 14,085 | 0.27 |
| Yukon | 1,110 | 495 | 0.45 |
| Northwest Territories | 1,360 | 550 | 0.40 |
| Canada (excl. Quebec) | 936,505 | 588,585 | 0.63 |
| Canada (total) | $\mathbf{6 , 6 3 6 , 6 5 5}$ | $\mathbf{6 , 3 5 9 , 5 0 0}$ | $\mathbf{0 . 9 6}$ |

1. The populations concerned include all respondents who reported French as their sole language or in a multiple response; the sum of the estimates may be greater than the total population. The continuity index is the home-language figure divided by the mother-tongue figure.
Source: Based on Statistics Canada, 1998b.

The issue of literacy in French has a socio-political dimension: recognition of the French language and of linguistic minority groups. According to the Canadian Constitution, French is one of the country's two official languages. The children from official language minorities are guaranteed access to French (or English) elementary and secondary schools. The two languages have equal status in the federal government, which is required under the Official Languages Act to promote the country's linguistic duality and, in particular, protect the French-speaking minorities outside Quebec (and the English-speaking minority in Quebec). Recognition of the French language and francophones varies widely across the provinces and territories.

Consequently, the status of literacy in French in Canada depends on the demographic situation in each community and on the linguistic and cultural policies of the various levels of government.

### 1.2.3 Employment and economic issues

For over 20 years, the emergence of the new economic paradigm of "globalization" has been magnifying literacy's role in the workplace. Computerization is leading to a new way of using language and mathematics. Workers with a low level of literacy are encountering means of production that require proficiency in reading and writing. Traditional strategies for getting by despite reading difficulties are no longer effective. The new forms of work organization are also increasing the use of the written word. For example, under "total quality" schemes, workers are required to keep logs. To meet ISO standards, all work processes and maintenance activities must be documented in detail. The new forms of work organization require greater proficiency in oral and written communication.

Literacy is the key to communication, information processing and problem-solving skills. It develops the ability to learn and adapt quickly and increases participation in work life and in the business sector in general. It encourages people to acquire a range of transferable skills.

The OECD has shown how important literacy is to a nation's competitiveness (OECD and Statistics Canada, 1995). Globalization of markets is likely to result in the massive relocation of labour, and there will probably be a greater need for personnel in the high-tech industries and a steady demand for moderately and highly skilled professional, technical and administrative workers. An educated, skilled population would enhance business's ability to adapt to change and improve productivity. It is also recognized that by providing more employment opportunities, literacy makes people less dependent on the State. ${ }^{3}$

The economic issues connected with literacy have a special dimension for francophones, since being literate is likely to help them find opportunities in the labour market and earn a decent income, which in turn may help them stay together as a community. Historically, the massive illiteracy of French-Canadians was a reflection and a symptom of their economic lifestyle - both the subsistence economy they had in rural areas and the subordinate economic status they acquired when they moved to the cities. With the drive to change their economic status came a double challenge: create economic tools for development and improve education. The two dimensions reinforced one another, demonstrating how important literacy in French is to community development. Yet many francophone communities did not experience that mutually reinforcing effect. Economic integration and access to a better lifestyle were achieved at the cost of cultural integration into anglophone environments (Cardinal, Lapointe and Thériault, 1990). Even in contemporary Quebec, despite legislation making French the language of work, not all francophone workers are able to work in their own language (Conseil de la langue française, 1995:145).

### 1.3 Francophone literacy in Canada: a few facts

The surveys that preceded the 1994 IALS (Southam News, 1986; Statistics Canada, 1989) as well as previous reports (OECD and Statistics Canada, 1995; Statistics Canada, 1996) have nothing more than general information about literacy in French and francophone literacy. ${ }^{4}$

## The 1986 Southam survey

A Canada-wide survey was conducted in 1986 on behalf of Southam News. Language was one of the variables. One observation of note is that respondents who had French as their mother tongue but were interviewed in English were actually rated on their proficiency in English (Table 1.3).

Table 1.3 Mother tongue and language of interview, by region or province (in \%), Southam, 1986

|  | Mother tongue ${ }^{1}$ |  | Language of interview |  |
| :---: | :---: | :---: | :---: | :---: |
|  | English | French | English | French |
| British Columbia | 89 | 5 | 100 | 0 |
| Alberta | 87 | 6 | 100 | 0 |
| Saskatchewan/Manitoba | 86 | 4 | 100 | 0 |
| Ontario | 82 | 10 | 100 | 0 |
| Quebec | 9 | 94 | 3 | 97 |
| Atlantic | 92 | 11 | 98 | 2 |
| Total | 66 | 31 | 75 | 25 |

1. Since respondents were asked to identify which languages they spoke at home during childhood ("English, French, other languages"), the percentages in this table, which contains data for English and French, may add up to more than or less than $100 \%$.
Source: Wagner, 1996.

The survey produced another major finding, also seen in subsequent studies: francophones have a higher illiteracy rate ${ }^{5}$ than anglophones ( $28 \%$ compared with $19 \%$; see Table 1.4).

Table 1.4 Illiteracy rate (in \%) by mother tongue, Canada, 1986

| Mother tongue | Illiteracy rate |
| :--- | ---: |
| English | 19 |
| French | 28 |
| Other | 41 |

[^0]
## The 1989 LSUDA survey

In the 1989 Survey of Literacy Skills Used in Daily Activities (LSUDA) conducted by Statistics Canada, $13 \%$ of francophones responded in English, a sign of the language's dominance. The results also showed a lower level of literacy for francophones: $17 \%$ of them were deemed to be illiterate (levels 1 and 2) compared with about $9 \%$ of anglophones (Table 1.5). Moreover, at the highest literacy level (level 4), the gap between francophones and anglophones widened to 13 percentage points ( $71 \%$ compared with $58 \%$ ). The survey revealed a similar disparity in numeracy skills: there was a higher percentage of francophones at the lower levels and a smaller percentage at the highest level.

| Table 1.5 | Distribution of literacy and numeracy levels by mother tongue and language of test, Canadians aged 16 to 69, 1989 (LSUDA) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Mother tongue | Language of test | Level 1 | Level 2 | Level 3 | Level 4 |
|  |  | $\begin{gathered} \text { \% } \\ \text { Literacy } \end{gathered}$ |  |  |  |
| English | English (100\%) | 2 | 7 | 21 | 71 |
| French | Total | 4 | 13 | 25 | 58 |
|  | English (13\%) | (4) | (10) | 23 | 64 |
|  | French (87\%) | 4 | 13 | 25 | 57 |
| Other | Total | 16 | 15 | 25 | 45 |
|  | English (94\%) | 17 | 14 | 25 | 45 |
| Mother tongue | Language of test | Numeracy |  |  |  |
|  |  | Level 1 | Level 2 | Level 3 |  |
| English | English (100\%) | 10 | $\begin{aligned} & \% \\ & 23 \end{aligned}$ | 67 |  |
| French | Total | 19 | 27 | 54 |  |
|  | English (13\%) | (13) | 29 | 58 |  |
|  | French (87\%) | 20 | 27 | 53 |  |
| Other | Total | 19 | 26 | 55 |  |
|  | English (94\%) | 18 | 26 | 56 |  |

( ) These estimates have a high error rate.
Source: Statistics Canada, 1991a:34.
When we compare cohorts with the same level of schooling or cohorts in the same age group, the difference is smaller, but it is still there. For example, with the same level of schooling, francophones generally perform less well than anglophones at both ends of the spectrum (Table 1.6): for the group with little education, there were proportionally more francophones than anglophones at literacy levels 1 and 2; for the group with post-secondary education, there was a slightly greater proportion of anglophones at the highest literacy level. By 1989, then, the remedial education of francophones had apparently failed to close the literacy gap with anglophones.

Table 1.6 Percentage distribution of persons aged 16 to 69, born in Canada, with English or French mother tongue, by educational attainment and literacy level, Canada, 1989 (LSUDA)

| Educational attainment | Mother tongue | Level 1 | Level 2 | Level 3 | Level 4 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| None or elementary |  |  |  |  |  |
|  | English | 22 | 29 | 33 | 15* |
|  | French | 20 | 41 | 29 | 10* |
| Some high school |  |  |  |  |  |
|  | English | -- | 12 | 34 | 52 |
|  | French | -- | 15 | 39 | 44 |
| Completed high school |  |  |  |  |  |
|  | English | -- | 3* | 19 | 77 |
|  | French | -- | 6 * | 23 | 70 |
| Non-university postsecondary |  |  |  |  |  |
|  | English | -- | -- | 13 | 85 |
|  | French | -- | -- | 14 | 81 |
| University |  |  |  |  |  |
|  | English | -- | -- | 6 * | 93 |
|  | French | -- | -- | -- | 90 |

* Percentage subject to large error.
-     - This estimate cannot be released because of high sampling variability.

Source: Statistics Canada, 1991a:39.

A few studies have examined the LSUDA survey data (Statistics Canada, 1991a) from a provincial perspective. According to the New Brunswick report (Jones, 1992a), francophones had lower literacy levels than both anglophones in the province and francophones in Quebec. The Quebec report (Roy and Gobeil, 1993) also shows a considerable difference between francophones and anglophones (Table 1.7). The Ontario report (Jones, 1992b) focuses on the situation of allophones, since the sample was not large enough to examine the situation of francophones. One particular piece of information seems significant: the proportion of francophones with the highest literacy level ( $60 \%$ ) was 9 percentage points lower than the proportion of anglophones ( $69 \%$ ).

Table 1.7 Percentage distribution of Canadians aged 16-69 by mother tongue and literacy level, Quebec, 1989

|  | Level 1 | Level 2 | Level 3 | Level 4 |
| :--- | :---: | :---: | :---: | ---: |
| English | - | - | $17^{*}$ | 68 |
| French | 4 | 13 | 25 | 58 |
| Other | $14^{*}$ | $17^{*}$ | 32 | $\mathbf{3 7}$ |
| Total | $\mathbf{5}$ | $\mathbf{1 3}$ | $\mathbf{2 5}$ | $\mathbf{5 7}$ |

* Percentage subject to large error.
-     - This estimate cannot be released because of high sampling variability.

Source: Roy and Gobeil, 1993:3.

## The 1994 IALS

The third Canada-wide survey, the 1994 IALS, has been the subject of a number of reports, including three major ones: OECD and Statistics Canada, 1995; OECD and HRDC, 1997; Statistics Canada, 1996. The first two compare the results for the countries that participated in the survey. The third report, on the situation in Canada, discusses the relationship between
literacy levels and mother tongue (Statistics Canada, 1996:31-35). Table 1.8 is taken from that report.

Once again, a significant proportion of francophone respondents elected to take the test in English, confirming the language's attraction, especially outside Quebec and New Brunswick. ${ }^{6}$

The overall results for francophones are much lower than the results for anglophones.

- At level 1 on the three test scales, the proportion of French mother tongue respondents $(25 \%, 29 \%$ and $26 \%$ ) was nearly twice as large as the proportion of English mother tongue respondents ( $13 \%, 15 \%$ and $14 \%$ ). ${ }^{7}$
- Regardless of the type of literacy scale, levels 1 and 2 combined contained over half of the francophones. There were proportionally more francophones at those levels than anglophones; the average difference was about 18 percentage points.
- The disparity between the two language groups is almost as large at level $4 / 5$ as at levels 1 and $2(9 \%, 14 \%$ and $11 \%$ compared with $27 \%, 28 \%$ and $26 \%)$. The average difference was nearly 16 points.
It is worth noting that the language in which francophones took the test affected their performance: for all three types of literacy, francophones who took the tests in English were more likely to have failed to achieve level 3 (by about 6 percentage points) than francophones who took them in French. ${ }^{8}$ At the highest level, the advantage held by those who responded in French was significant only for document literacy ( 8 points).

Table 1.8 Percentage distribution of Canadians aged 16 and over on the prose, document and quantitative scales, by mother tongue and language of test, Canada, 1994

| Mother tongue | Language of test | Level 1 | Level 2 | Level 3 | Level $4 / 5$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Prose Scale |  |  |  |
| English | English (99\%) | 13 | 25 | 35 | 27 |
| French | Total | 25 | 27 | 39 | 9 |
|  | French (72\%) | 25 | 25 | 35 | 27 |
|  | English (28\%) | 35 | 23 | 33 | 10 |
| Other | Total | 48 | 26 | 16 | 10 |
|  | English (96\%) | 45 | 28 | 16 | 11 |
|  |  |  | Document Scale |  |  |
| English | English (99\%) | 15 | 23 | 35 | 28 |
| French | Total | 29 | 27 | 29 | 14 |
|  | French (72\%) | 28 | 28 | 29 | 15 |
|  | English (28\%) | 41 | 22 | 30 | 7 |
| Other | Total | 45 | 25 | 15 | 15 |
|  | English (96\%) | 42 | 26 | 15 | 17 |
|  |  |  | Quantitative Scale |  |  |
| English | English (99\%) | 14 | 23 | 37 | 26 |
| French | Total | 26 | 32 | 31 | 11 |
|  | French (72\%) | 25 | 32 | 32 | 11 |
|  | English (28\%) | 29 | 34 | 28 | 10 |
| Other | Total | 43 | 26 | 18 | 12 |
|  | English (96\%) | 41 | 26 | 20 | 13 |

Source: Statistics Canada, 1996:33.

Finally, we can compare the 1989 LSUDA survey and the 1994 IALS if we confine the IALS data to respondents between the ages of 16 and 69 to match the LSUDA survey's age groups. LSUDA levels 1 and 2 cover essentially the same range of skills as IALS level 1 , while LSUDA level 4 corresponds to IALS levels 3 and 4/5 (Statistics Canada, 1996:21). Bearing in mind that the correspondences are approximate, we find that a comparison of the 1989 literacy test results (Table 1.5) with the 1994 prose literacy test results (Table 1.9) shows a slight regression rather than an improvement in performance for both francophones and anglophones. In addition, the average difference of about 10 percentage points between francophones and anglophones remains at both the upper and lower levels. Even though the two surveys were only five years apart, some improvement might have been expected since some older adults were replaced by younger, better educated cohorts.

Table 1.9 Distribution of prose literacy by language and Language of test, Canadians aged 16 to 69, 1994

| Mother tongue | Language of test | Prose Literacy |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Level 1 | Level 2 | Level 3 | Level $4 / 5$ |
|  |  |  |  |  |  |
| English | English (100\%) | 9 | 25 | 36 | 30 |
| French | Total | 19 | 28 | 43 | 11 |
|  | French (92\%) | 18 | 28 | 43 | 10 |
|  | English (8\%) | 28 | 23 | 38 | 11 |
| Other | Total | 45 | 27 | 17 | 11 |
|  | English (88\%) | 42 | 29 | 17 | 12 |

On the other hand, literacy data for Canadians aged 16 to 25 by region ${ }^{9}$ indicate that young Quebeckers (mostly francophone) substantially improved their status relative to their elders and other Canadians. For the sake of comparison, levels 1 and 2 were combined for the prose and document scales (Table 1.10). At levels $1 / 2$, young Quebeckers were proportionally the smallest group for prose literacy and right on the Canadian average for document literacy. At level $4 / 5$ on the two scales, however, young Quebeckers ranked below the average for young people at the national level, in Ontario and in the Western provinces. On the other hand, the general improvement for young Quebeckers cannot obscure the fact that there is a literacy gap between francophones as a group and anglophones.

## Table 1.10 Percentage distribution of Canadians aged 16 to 25 on the prose and document scales, by region, 1994

|  | Level $1 / 2$ | Level 3 | Level $4 / 5$ |
| :--- | :---: | :---: | :---: |
|  |  | Prose Scale |  |
| Canada | $\mathbf{3 7}$ | $\mathbf{4 4}$ |  |
| Atlantic provinces | 43 | 42 | $\mathbf{2 0}$ |
| Quebec | 30 | 56 | 15 |
| Ontario | 41 | 39 | 14 |
| Western provinces | 34 | 41 | 21 |
|  |  | Document | Scale |
| Canada | $\mathbf{3 2}$ | $\mathbf{3 6}$ |  |
| Atlantic provinces | 43 | 40 | $\mathbf{3 1}$ |
| Quebec | 32 | 40 | 18 |
| Ontario | 34 | 34 | 28 |
| Western provinces | 27 | 36 | 32 |

Source: Statistics Canada, 1996:35.

### 1.4 Conclusion

Overall, francophones, no matter which language they used in the tests, have lower literacy and numeracy skills than anglophones.

Moreover, the number of francophones who responded in English points to the predominance of English as the day-to-day language of many francophones outside Quebec, which produces a proportional decrease in literacy in French since those francophones are losing their proficiency in oral and written French.

A comparative analysis of LSUDA and IALS results (Tables 1.5 and 1.9) reflecting the conditions set out by Statistics Canada ${ }^{10}$ (1996:18) reveals similar disparities: the results for francophones as a group are lower than the results for anglophones as a group. Adult education programs and better education for young francophones has yet to close the historical gap between the two groups.

## Chapter 2

## Methodological Considerations

This chapter presents methodological information about the International Adult Literacy Survey (IALS). The first part deals with the survey's general principles, its objectives and the dimensions it covered. The second part describes the sample and its quality. In the third part, we discuss our analytic options based on the survey's limitations.

### 2.1 Objectives of the IALS

Conducted in the fall of 1994, the IALS was designed to gather information about the levels and distribution of literacy skills in Canada's adult population. The term "illiteracy" was not used, because it was assumed a priori that everyone has some level of literacy and that there is no threshold below which an individual is considered "illiterate." ${ }^{11}$ This way of looking at and measuring literacy is consistent with the research tradition developed in the United States. That tradition defines literacy in terms of reading, writing and arithmetic skills measured by tests. ${ }^{12}$

The 1996 Canadian report attempts to determine the principal literacy characteristics of Canadians in general, regardless of which official language community they belong to. In contrast, the Swiss report distinguishes between germanophones and francophones. Canadian respondents were given the choice of being interviewed and tested in either English or French. However, since the national sample contained a relatively small number of francophones, it was impossible to study the literacy levels of the francophone population as a whole.

### 2.2 Dimensions of the IALS

The IALS used two instruments to collect literacy data: a nine-section basic interview questionnaire and a battery of reading, writing and arithmetic tests. The basic questionnaire gathered information about respondents' social status and their reading, writing and arithmetic habits at work and at home (Appendix A.1). It also included a self-assessment of language proficiency.

The second instrument was a test designed to assess three categories of literacy skills:

- prose literacy, which involves reading, understanding and using information from texts such as editorials and news stories;
- document literacy, which entails locating and using information contained in job applications, payroll forms, transportation schedules, etc.;
- quantitative literacy, which involves performing arithmetic operations on numbers in printed materials such as chequebooks and weather maps.
The tasks for each of the three categories were chosen on the basis of five different levels of complexity (Appendix A.2), and the results were placed on three graduated literacy scales ranging from 0 to 500 points for tasks ranging from simple (level 1) to complex (level 5).


### 2.3 Target population of the Canadian sample

The IALS's target population consists of all household members aged 16 and over in Canada's 10 provinces. Various target groups were oversampled so that their literacy could be reliably estimated: "Unemployment Insurance and social assistance recipients, in- and out-of-school youth, and francophones in New Brunswick and Ontario" (Statistics Canada, 1996:11).

The overall response rate for the Canadian part of the IALS was $68.7 \%$ for a total of 5,660 respondents. Table 2.1 shows the weighted and unweighted geographic distribution of the 5,660 respondents who completed the interview questionnaire and took the tests.

Table 2.1 Geographic distribution of IALS respondents, Canadian adults aged 16 and over, 1994

|  | Weighted |  |  |  |
| :--- | ---: | ---: | ---: | ---: |
| Unweighted | Number | Percentage | Number | Percentage |
| Atlantic provinces | 1,535 | 27.1 | $1,786,424$ | 8.4 |
| Quebec | 794 | 14 | $5,431,033$ | 25.4 |
| Ontario | 1,925 | 34 | $8,004,546$ | 38.6 |
| Western provinces | 1,406 | 24.8 | $6,085,890$ | 28.6 |
| Total | $\mathbf{5 , 6 6 0}$ | $\mathbf{1 0 0}$ | $\mathbf{2 1 , 3 0 7 , 8 9 3}$ | $\mathbf{1 0 0}$ |

Source: Statistics Canada, 1997.

Respondents were permitted to complete the interview questionnaire in the official language of their choice: 3,752 people did so in English, and 1,908 in French. A total of 3,951 people took the tests in English, and 1,709 in French.

### 2.4 Analytic options for this report

The FCAF's original project was to gather information about francophones that would be comparable to the information in the Canadian and international reports, by examining various dimensions of their literacy based on the survey's five levels. However, we were forced to alter the original plan because the national francophone sample was not large enough. The small sample size made it difficult if not impossible to cross-tabulate variables because there were limited numbers of individuals in the various categories of each variable.

Our analysis is based on the general idea that literacy is not a simple reality and that we need to probe its boundaries. The first step in that process is to differentiate three "types" of literacy, each of which focuses on a particular facet: literacy of Canada as a whole, literacy of a sociolinguistic group, and literacy in a specific language. The first type is about the comprehension skills and writing or reading habits of Canadians regardless of the language of assessment (English or French). The disadvantage of this measure is that it ignores the languages and communities involved. A language group's literacy in its first language does not necessarily intersect with its literacy in another language. The distinction seems pointless when a sociolinguistic group uses primarily its first language and its literacy is assessed in
that language; that was the case for English-Canadians, $99 \%$ of whom responded in English. It makes much more sense in the case of a francophone community exposed to pressure from another language and another culture. The gaps between levels and types of literacy can be indicators of a language community's socio-cultural stability.

Our definition of a francophone is essentially the same as the one commonly accepted by the Canadian government: "a person whose first language learned and still understood is French. ${ }^{13}$ However, some reports based on the IALS had trouble defining a francophone. For example, in Reading the Future, Statistics Canada (1996:32) states that "[i]t is not always clear who is to be included in the group of French speakers," and that in its report, "French results refer to those who chose to answer the test items in French" (id.). A similar policy was followed in the secondary IALS studies for French-speaking Ontario (Garceau, 1998:40) and New Brunswick (Statistics Canada, 1998a:20-22).

The bulk of our study will concern francophones, no matter which language they used in responding to the survey. Furthermore, we will distinguish between francophones who live in Quebec and francophones who live in another province. We will frequently be comparing the literacy of the two official language communities. In general, the aim will be to describe the situation of francophones in relation to various dimensions of literacy.

Regression analysis will enable us to isolate a number of factors that may help to explain a phenomenon without having to divide the sample into subgroups. In this way, we will overcome the reliability problem caused by the small number of individuals in some variable categories. On the other hand, we are unable to analyze the relationships between the literacy levels of francophones and the survey's other variables. Very often, too, the estimates will be unreliable because the error is so large.

## Chapter 3

## Literacy of Francophones: Linguistic Behaviours and Literacy Practices

Literacy is not limited to comprehension of written materials; it also encompasses habits and behaviours vis-à-vis the written language and consequently must be viewed in the light of specific cultural and linguistic contexts. In other words, literacy is part of a particular culture and a particular history. And it is part of the communication activities of everyday living and work life and part of each person's cultural practices.

In this chapter, we will paint a portrait of the literacy of francophones. First, we will describe their literacy level; then we will examine four dimensions of their literacy practices, behaviours and attitudes: (a) cultural practices associated with reading and writing; (b) literacy at home and family literacy instruction; (c) use of reading, writing and arithmetic skills at work; (d) respondents' self-assessment of their language proficiency (Box 3.1).

Since cultural and linguistic practices are affected by the surroundings, we will differentiate between francophones in Quebec (where they are the majority group) and francophones in other provinces (where they are in the minority). ${ }^{14}$ We will also compare the practices of francophones and anglophones.

Box 3.1 Dimensions and indicators of literacy practices, behaviours and attitudes

| Dimensions | Cultural practices associated with reading and writing | Literacy at home and family literacy instruction | Use of reading, writing and mathematics at work | Self-assessment of language proficiency |
| :---: | :---: | :---: | :---: | :---: |
| IndicatOrs | - participating in cultural and literacy activities (Table 3.4) | - having printed materials at home (Table 3.6) <br> - how often one reads in everyday life (Table 3.6) <br> - participating in family literacy instruction activities (Table 3.7) <br> - asking for help in reading or writing (Table 3.8) | - how often one reads various types of written materials at work (Table 3.9) <br> - how often one writes various types of texts at work (Table 3.10) <br> - how often one uses mathematical operations at work (Table 3.11) | - self-assessment relative to everyday requirements (Table 3.12) <br> - respondents who rate their skills as excellent or good in relation to their work (Table 3.13) <br> - level of satisfaction with one's reading and writing skills (Table 3.14) |

### 3.1 Literacy level of francophones

Overall, francophones have a lower literacy level than anglophones. That was the finding of the IALS (Table 1.8) and two earlier surveys (Southam News and the LSUDA). According to Table 3.1, which provides a breakdown of literacy skills by province, Quebec (which is $82 \%$ francophone) and New Brunswick ( $33 \%$ francophone) have the highest proportion of adults at the lowest literacy level. The largest difference between these provinces and the national average is at prose literacy level $4 / 5$.

Table 3.1 Percentage distribution of Canadians aged 16 and over on the prose, document and quantitative scales, by region and selected provinces

|  | Level 1 | Level 2 | Level 3 | Level $4 / 5$ |
| :---: | :---: | :---: | :---: | :---: |
| Canada | Prose Scale |  |  |  |
|  | 22 | 26 | 33 | 20 |
| Atlantic provinces | 25 | 26 | 35 | 15 |
| New Brunswick | 28 | 31 | 25 | 16 |
| Quebec | 28 | 26 | 39 | 8 |
| Ontario | 19 | 28 | 28 | 25 |
| Western provinces | 18 | 24 | 34 | 25 |
|  | Document Scale |  |  |  |
| Canada | 23 | 24 | 30 | 22 |
| Atlantic provinces | 28 | 26 | 32 | 14 |
| New Brunswick | 29 | 30 | 24 | 16 |
| Quebec | 31 | 27 | 29 | 13 |
| Ontario | 21 | 22 | 31 | 26 |
| Western provinces | 19 | 25 | 29 | 27 |
|  | Quantitative Scale |  |  |  |
| Canada | 22 | 26 | 32 | 20 |
| Atlantic provinces | 23 | 30 | 30 | 16 |
| New Brunswick | 25 | 34 | 27 | 14 |
| Quebec | 28 | 32 | 30 | 10 |
| Ontario | 20 | 23 | 34 | 23 |
| Western provinces | 18 | 24 | 33 | 25 |

Source: Statistics Canada, 1996:20.

Table 3.2 provides a breakdown of respondents by literacy level and language group; francophones in Quebec and francophones in other provinces are tabulated separately. When we look at the combined information in Tables 1.8 and 3.2, we make the following observations:

- At the lowest skill level on all three scales, the proportion of francophones is double the proportion of anglophones; on the prose and document scales (which are more closely associated with the written word), the gap is 12 and 14 percentage points respectively.
- More than half of all francophones are at the lowest levels (1 and 2); level 3 is considered the prerequisite for most occupations.
- At the highest literacy level (4/5), there is a much lower proportion of francophones than anglophones - two to three times lower, depending on the test.
- Table 1.8 shows that outside Quebec, a significant proportion of francophones chose to respond in English; almost all anglophone and allophone respondents ( $99 \%$ and $96 \%$ ) used English.
- According to the same table, francophones who responded in English were more likely than those who responded in French to score below level 3 on each test.
- Francophones outside Quebec are more likely to be at level 1 (the lowest level) and less likely to be at level 3 than francophones in Quebec. The difference at level 1 is 10 percentage points on the prose and document tests, which involve the written word to a greater degree. Nevertheless, the two groups are proportionally equal at level $4 / 5$. ${ }^{15}$
- Regardless of where they live, there are proportionally more francophones at the lowest level (1) than the Canadian average, and proportionally fewer at the highest level (4/5).

Table 3.2 Percentage distribution of the Canadian population aged 16 and over by literacy level, language group and place of residence of francophones, 1994

|  | Francophones Canada | Francophones Quebec | Francophones outside Quebec | Anglophones | Canadian average |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Prose literacy |  |  |  |  |  |
| Level 1 | 25 | 24 | 34 | 12 | 22 |
| Level 2 | 27 | 26 | 27 | 25 | 26 |
| Level 3 | 39 | 41 | 28 | 35 | 33 |
| Level 4/5 | 9 | 9 | 11 | 27 | 20 |
| Document literacy |  |  |  |  |  |
| Level 1 | 29 | 28 | 38 | 15 | 23 |
| Level 2 | 27 | 28 | 24 | 23 | 24 |
| Level 3 | 29 | 30 | 26 | 35 | 30 |
| Level 4/5 | 14 | 15 | 12 | 28 | 22 |
| Quantitative literacy |  |  |  |  |  |
| Level 1 | 26 | 25 | 28 | 14 | 22 |
| Level 2 | 32 | 32 | 33 | 23 | 26 |
| Level 3 | 31 | 32 | 27 | 37 | 32 |
| Level $4 / 5$ | 11 | 11 | 11 | 26 | 20 |

These data confirm the gap between Canadian francophones as a group and anglophones. In addition, the high concentration of francophones outside Quebec at the lower literacy levels would appear to be related to their minority situation. The fact that over $60 \%$ of francophones outside Quebec and over $50 \%$ of francophones in Quebec are at levels 1 and 2 highlights the importance of basic education for all members of Canada's Frenchspeaking community.

Finally, a comparison of francophones and anglophones in the three provinces ${ }^{16}$ where $97 \%$ of Canada's francophones live (Table 3.3) confirms that the major literacy differences between the two groups exist even in the areas they share:

- On all three scales, there are proportionally more francophones than anglophones at the lowest level, and proportionally fewer at the highest level.
- The gap between the two groups is widest in Ontario. There are proportionally twice as many francophones at the lowest level (1) and less than half as many at the highest level (4/5).
- The largest difference is at the highest level of prose literacy: a mere $8 \%$ of francophones, compared with $30 \%$ of anglophones.
- In Quebec, the 1994 sample is too small for a comparison of the two groups, but the 1989 sample showed that anglophones had better results than francophones (Roy and Gobeil, 1993:31).
- A comparison of francophones in Quebec with anglophones in the three provinces shows the former with a much larger proportion at level 1 and a smaller proportion at level $4 / 5$.
- This pattern is repeated in New Brunswick at both the lowest and highest levels.
- In fact, the gap between francophones and anglophones is even more serious since the francophones' poor results drag the province down below the Canadian average. A comparison of Tables 3.1 and 3.3 indicates that the results of NewBrunswick's anglophones are higher than the Canadian average.

Table 3.3 Percentage distribution of the Canadian population aged 16 and over on all three scales, by literacy level, mother tongue and main francophone regions of Canada, 1994

|  | Level 1 | Level 2 | Level 3 | Level 4/5 |
| :---: | :---: | :---: | :---: | :---: |
|  | Prose Scale |  |  |  |
| French | 25 | 27 | 39 | 9 |
| New Brunswick | 36 | 32 | 21 | 11 |
| Quebec | 23 | 26 | 41 | 9 |
| Ontario | 29 | 31 | 32 | 8 |
| English | 13 | 25 | 35 | 27 |
| New Brunswick | 17 | 30 | 30 | 23 |
| Quebec | ... | ... | ... | ... |
| Ontario | 12 | 26 | 32 | 30 |
|  | Document Scale |  |  |  |
| French | 29 | 27 | 29 | 14 |
| New Brunswick | 38 | 28 | 23 | 12 |
| Quebec | 28 | 28 | 30 | 15 |
| Ontario | 30 | 30 | 27 | 13 |
| English | 15 | 23 | 35 | 28 |
| New Brunswick | 19 | 34 | 25 | 23 |
| Quebec |  |  |  |  |
| Ontario | 15 | 20 | 35 | 30 |
|  | Quantitative Scale |  |  |  |
| French | 26 | 32 | 31 | 11 |
| New Brunswick | 31 | 34 | 26 | 9 |
| Quebec | 25 | 32 | 32 | 11 |
| Ontario | 26 | 32 | 31 | 11 |
| English | 14 | 23 | 37 | 26 |
| New Brunswick | 16 | 34 | 28 | 21 |
| Quebec |  |  |  |  |
| Ontario | 14 | 21 | 37 | 28 |

... The sample size is too small to produce a reliable estimate.

Turning now to the results of francophones in the same three provinces, we have the following observations:

- There are proportionally fewer Quebec francophones at levels 1 and 2 than New Brunswick and Ontario francophones, though the difference between Quebec and Ontario is small (not significant on the document and quantitative scales).
- Except on the prose scale, the proportion of Franco-Ontarians and FrancoQuebeckers is the same at every level.
- At level $4 / 5$ on all three scales, the proportion for all three francophone communities is much the same, but smaller than the proportion of anglophones.
- The situation of francophones in New Brunswick seems critical, as two thirds of them are at levels 1 and 2 .

This high concentration of New Brunswick francophones at the lowest levels is particularly worrisome since there is a clear gap between them and the province's anglophones, the Canadian population as a whole and the population of Canada's five regions.

It is also possible to draw international comparisons with the IALS data. Table 3.4 contains Canada's results by mother tongue and selected provinces and the results of other countries or regions that participated in the survey. ${ }^{17}$ While the IALS makes transnational comparisons possible, the data shown must be treated with caution since we are comparing language communities with countries or regions. A comparison of Canada's French-mothertongue communities with six countries (Canada, Germany, the Netherlands, Poland, Sweden and the United States) and two regions (French-speaking Switzerland and German-speaking Switzerland) indicates that the situation of francophones is problematic not only in Canada but also compared to a number of other industrialized countries or regions. We compared the results for each of Canada's francophone groups with the results for the eight countries and regions:

- Canadians whose mother tongue is French are below average on all three scales; there are proportionally more of them at the lowest level and fewer at the highest level. At level 1 on all three scales, their results are below those of Poland and the United States. At level 4/5, they are among the bottom four (with the two Swiss regions and Poland) on the prose and document scales, and second last ahead of Poland on the quantitative scale. At the lowest level, the results of Canada's francophones are close to those of Americans, which may seem reassuring. At the highest level, however, francophones' results are much lower on the document and quantitative scales.
- Ontario's francophones are in much the same position as the francophone group in Canada as a whole: they rank among the bottom two or three at both the lowest and highest literacy levels on all three scales.
- New Brunswick's francophones are in the most serious situation since at levels 1 and $4 / 5$ on all three scales, they rank second-last ahead of Poland in four out of six results. The only exception is prose level $4 / 5$, in which New Brunswick francophones rank fifth.
- The rather poor showing of Canada's francophones is not solely due to the results of francophones outside Quebec. A comparison with the eight other countries and communities shows that Quebec's francophones are well below average at both level 1 and level $4 / 5$. The sole exception was prose level 1 , where they came fourth.

Table 3.4 Distribution of the population aged 16 to 65 by prose literacy level, various countries and regions, IALS, 1994

|  | Prose Literacy |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Level 1 | Level 2 | Level 3 | Level $4 / 5$ |
| Canada | 17 | 26 | 35 | 23 |
| Canada (French) | 18 | 28 | 44 | 11 |
| Canada (English) | 9 | 25 | 36 | 31 |
| Canada (Other) | 45 | 26 | 18 | 11 |
| Quebec (French) | 16 | 27 | 46 | 10 |
| Ontario (French) | 24 | 32 | 35 | 10 |
| New Brunswick (French) | 26 | 35 | 25 | 14 |
| Germany | 14 | 34 | 38 | 13 |
| Netherlands | 11 | 30 | 44 | 15 |
| Poland | 43 | 35 | 20 |  |
| Sweden | 8 | 20 | 40 | 32 |
| Switzerland (French) | 18 | 34 | 39 | 10 |
| Switzerland (German) | 19 | 36 | 36 | 9 |
| United States | 21 | 26 | 32 | 21 |

### 3.2 Cultural practices and literacy in everyday life

Literacy is not acquired at school alone. It is influenced by the literacy environment, by the use of reading and writing in the community, at home and at work. In this section, we examine some indicators in this area, while comparing the situation of francophones and anglophones.

### 3.2.1 Cultural practices associated with reading and writing

The first indicator we will consider is participation in cultural activities that include reading and writing ${ }^{18}$ : using libraries, taking part in shows and sporting events, reading newspapers, ${ }^{19}$ etc. The data in Table 3.4 reveal a generally significant difference between anglophones and francophones:

- Nearly one third of francophones use public libraries, compared with over 55\% of anglophones.
- Attending shows and sporting events is more common than going to libraries; roughly six francophones out of ten do so. Again, the proportion of anglophones is higher.
- Half of all francophone respondents write letters of more than one page, but proportionally more anglophones do so.
- Membership in volunteer associations is less frequent among francophones than among anglophones.
- Reading magazines and newspapers is almost universal in both language groups (over $90 \%$ of the population).
- Proportionally fewer francophones than anglophones read books ( $73 \%$ compared with $84 \%$ ). Francophones outside Quebec apparently read more than francophones in Quebec ( $80 \%$ compared with $71 \%$ ).
- Listening to mass media (radio, records, tapes, cassettes, CDs) is as universal as reading magazines, and equally widespread in both language groups.

Thus, with the exception of two nearly universal activities (listening to mass media and reading newspapers), proportionally fewer francophones than anglophones take part in literacy-related activities. For three key activities (writing letters, using libraries and reading books), francophone participation was substantially lower. Finally, certain variations in cultural practices between francophones in Quebec and outside Quebec suggest that their cultural participation patterns are somewhat different.

Table 3.5 Participation (in \%) in cultural and linguistic activities by mother tongue (and place of residence of francophones), population aged 16 and over, Canada, 1994

| Activities | Francophones | Francophones <br> Quebec | Francophones <br> outside | Quebec |
| :--- | ---: | ---: | ---: | ---: |$\quad$ Anglophones

### 3.2.2 Literacy at home and family literacy activities

The second indicator of literacy behaviour is the presence of printed materials in the home, which helps create an environment conducive to literacy. Printed materials are fairly common in both language communities, as at least half of all respondents reported having one of the types listed. The following are a few highlights from Table 3.6:

- A large proportion of francophone homes have a dictionary (89\%), but fewer have an encyclopedia ( $51 \%$ ).
- Nearly six out of ten francophones buy or have access to daily newspapers; even more of them buy weekly newspapers or magazines ( $81 \%$ ).
- Three quarters of all francophones have more than 25 books at home.
- Proportionally more francophones than anglophones read magazines, but fewer own more than 25 books or read newspapers - two key indicators.

Table 3.6 Possession of printed materials at home (in \%) by mother tongue (and place of residence of francophones), population aged 16 and over, Canada, 1994

| Printed material | Francophones | Francophones <br> Quebec | Francophones <br> outside <br> Quebec | Anglophones |
| :--- | ---: | ---: | ---: | ---: |
| Daily newspapers | 60 | 58 | 67 | 67 |
| Weeklies, magazines | 81 | 83 | 71 | 76 |
| Over 25 books | 74 | 73 | 78 | 87 |
| An encyclopedia | 51 | 51 | 53 | 52 |
| A dictionary | 89 | 88 | 94 | 93 |

Aside from newspapers and magazines, what do francophones read? A third indicator measures behaviour relative to six types of texts (Table 3.7) encountered in everyday life outside work. Reading varies substantially from type to type, regardless of the language group.

- Diagrams are the type of printed material least read by francophones: $79 \%$ say they seldom or never read them. This may help explain francophones' poor results on the document test, which often involves diagrams.
- The frequency is much higher for other printed materials. Reading reports or articles "more than once a week" has the highest frequency ( $46 \%$ ). Then come bills (36\%), directions (35\%), letters or memos (34\%) and manuals or reference books (31\%).
- The order of reading frequency is the same for all francophones.
- Proportionally more anglophones than francophones read letters or memos more than once a week. Proportionally fewer anglophones report that they seldom or never read four out of the six types: letters, manuals, diagrams and directions.
Overall, there appears to be a hard core of francophone non-readers consisting of at least $20 \%$ of the adult population.


## Table 3.7 Frequency of reading in everyday life (in \%) by mother tongue and place of residence

 of francophones, population aged 16 and over, Canada, 1994| Documents | Francophones | Francophones Quebec | Francophones outside Quebec | Anglophones |
| :---: | :---: | :---: | :---: | :---: |
| Letters or memos |  |  |  |  |
| More than once a week ${ }^{1}$ | 34 | 33 | 39 | 44 |
| Once a week or less | 23 | 22 | 26 | 29 |
| Seldom or never | 43 | 45 | 35 | 27 |
| Total | 100 | 100 | 100 | 100 |
| Reports, articles |  |  |  |  |
| More than once a week ${ }^{1}$ | 46 | 45 | 48 | 49 |
| Once a week or less | 32 | 33 | 28 | 33 |
| Seldom or never | 22 | 22 | 23 | 18 |
| Total | 100 | 100 | 100 | 100 |
| Manuals or reference works |  |  |  |  |
| More than once a week ${ }^{1}$ | 31 | 30 | 34 | 30 |
| Once a week or less | 36 | 36 | 37 | 45 |
| Seldom or never | 34 | 35 | 29 | 25 |
| Total | 100 | 100 | 100 | 100 |
| Diagrams |  |  |  |  |
| More than once a week ${ }^{1}$ | 10 | 12 |  | 11 |
| Once a week or less | 11 | 9 | 17 | 24 |
| Seldom or never | 79 | 81 | 73 | 65 |
| Total | 100 | 100 | 100 | 100 |
| Bills, invoices, etc. |  |  |  |  |
| More than once a week ${ }^{1}$ | 36 | 37 | 32 | 33 |
| Once a week or less | 46 | 45 | 47 | 47 |
| Seldom or never | 19 | 18 | 21 | 20 |
| Total | 100 | 100 | 100 | 100 |
| Directions, recipes |  |  |  |  |
| More than once a week ${ }^{1}$ | 35 | 33 | 44 | 38 |
| Once a week or less | 38 | 39 | 32 | 41 |
| Seldom or never | 28 | 28 | 24 | 20 |
| Total | 100 | 100 | 100 | 100 |

[^1]Literacy is largely acquired and developed at home. Family activities or situations can encourage children to get into the habit of reading. From the responses to questions on these practices (Table 3.8), we learn the following:

- Two practices are very common ( $90 \%$ or more of respondents) in both groups: children are free to choose what books to read; and they have their own books and a place to store them.
- Four out of five francophone parents say that their children see them read; the proportion is higher for francophones outside Quebec and anglophones than for francophones in Quebec.
- Television watching time is limited in over half of francophone homes in Quebec (55\%); the proportion is slightly higher for francophones outside Quebec and for anglophones ( 6 homes out of 10).
- Nearly $45 \%$ of francophone parents report that children learned to read before Grade 1. The proportion is much higher among anglophones (62\%).
- Setting aside a specified period for children to read is the least common family practice among francophones: just two out of five homes ( $41 \%$ ). However, it is more widespread among francophones outside Quebec (58\%) and anglophones (58\%) than among francophone Quebeckers (37\%).

Table 3.8 Participation (in \%) in family literacy activities by mother tongue and place of residence of francophones, population aged 16 and over, Canada, 1994

| Activity | Francophones | Francophones <br> Quebec | Francophones <br> outside | Quebec |
| :--- | ---: | ---: | ---: | ---: |$\quad$ Anglophones

(...) These estimates have a high error rate.

Almost all francophone homes have books, and in a large majority of families, the parents read to their children. Limiting the children's television watching time (this occurs in just over half of francophone homes) can be considered an indirect incentive to read, since the time saved can be spent on other activities, including reading. Conversely, it may be that the $45 \%$ of parents who do not limit television time see little value in reading. Finally, the most striking feature of the data is the large difference between francophones and anglophones in two critical behaviours: learning to read in early childhood and setting aside a time just for reading. The percentages for these practices are much higher among anglophones than among francophones.

Reading and writing before school age are recognized as key factors in subsequent learning at school. Research has shown that reading is a complex phenomenon that begins in early childhood (Ferreiro, 1988; Strickland and Morrow, 1989; Goodman, 1990; Giasson, 1995). For example, the literature on "emergent literacy" and the "emergence of literacy" illustrates the importance of activities promoting informal learning (knowledge, skills and attitudes) by children before they start school (Tremblay, 1997).

Our last literacy indicator is requests for assistance in dealing with difficulties in reading certain types of texts ${ }^{20}$ (Table 3.9).

Table 3.9 Requests for help in reading or writing in various situations (in \%), by mother tongue and place of residence of francophones, population aged 16 and over, Canada, 1994

| Help requested in | Francophones | Francophones <br> Quebec | Francophones <br> outside <br> Quebec | Anglophones |
| :--- | ---: | ---: | ---: | ---: |
| Reading newspaper articles | $(8)$ | $(9)$ | $(7)$ | $(3)$ |
| Reading institutional information | 21 | 21 | 23 | 15 |
| Reading forms | 17 | 17 | 21 | 9 |
| Reading instructions | $(8)$ | $(8)$ | 8 | $(5)$ |
| Reading instructions | $(8)$ | $(8)$ | 8 | 3 |
| Doing arithmetic | $(11)$ | $(11)$ | 9 | 5 |
| Writing notes | $(13)$ | $(13)$ | 14 | 5 |

( ) These estimates have a high error rate.

1. Such as those on a medicine bottle.
2. Such as those on a product in the store.

The proportion of francophones, whether they live in Quebec or elsewhere, who have requested assistance ranges from $8 \%$ to $21 \%$ depending on the nature of the text. Reading newspaper articles or directions presents the fewest problems, while reading institutional information or forms is more difficult for about one person in five. Francophones ask for help more than anglophones, but the order of difficulty of the text types is similar for the two groups. The two largest gaps between francophones and anglophones (more than 8 percentage points) are in reading forms and in writing notes.

### 3.2.3 Use of reading, writing and arithmetic at work

Literacy is increasingly coming to be regarded as a factor in economic development. As a result, it is probably important to examine reading, writing and arithmetic habits at work. One indicator, frequency of reading in the workplace (Table 3.10), reveals the following:

- Over half of all francophone respondents report that at work, they seldom or never read three types of texts: directions ( $65 \%$ ), diagrams ( $62 \%$ ) and bills or invoices (55\%). Letters and memos are the only texts read more than once a week by a majority ( $66 \%$ ). Reports or articles are read frequently by $45 \%$ of respondents, and manuals are read by only $37 \%$.
- For three of the six types, the behaviours of francophones in Quebec and outside Quebec are similar, whereas francophones in other provinces read the following types more than Franco-Quebeckers: bills and invoices, and especially manuals or reference works.
- With the exception of letters or memos and diagrams, francophones read less than anglophones at work.

Table 3.10 Frequency of reading or using various types of printed materials at work (in \%) by mother tongue (and place of residence of francophones), employed population aged 16 and over, Canada, 1994

| Materials read | Francophones | Francophones Quebec | Francophones outside Quebec | Anglophones |
| :---: | :---: | :---: | :---: | :---: |
| Letters or memos |  |  |  |  |
| More than once a week ${ }^{1}$ | 66 | 66 | 62 | 64 |
| Once a week or less | (11) | (10) | (12) | 15 |
| Seldom or never | 24 | 24 | 26 | 21 |
| Total | 100 | 100 | 100 | 100 |
| Reports, articles |  |  |  |  |
| More than once a week ${ }^{1}$ | 45 | 44 | 50 | 51 |
| Once a week or less | (19) | (18) | 20 | 19 |
| Seldom or never | 37 | 38 | 31 | 30 |
| Total | 100 | 100 | 100 | 100 |
| Manuals or reference works |  |  |  |  |
| More than once a week ${ }^{1}$ | 37 | 33 | 51 | 42 |
| Once a week or less | (19) | (19) | 16 | 29 |
| Seldom or never | 45 | 48 | 33 | 29 |
| Total | 100 | 100 | 100 | 100 |
| Diagrams |  |  |  |  |
| More than once a week ${ }^{1}$ | (27) | (27) | 27 | 28 |
| Once a week or less | (11) | (10) | (19) | 21 |
| Seldom or never | 62 | 63 | 54 | 51 |
| Total | 100 | 100 | 100 | 100 |
| Bills, invoices, etc. |  |  |  |  |
| More than once a week ${ }^{1}$ | 29 | 28 | 38 | 44 |
| Once a week or less | (16) | (16) | 17 | 22 |
| Seldom or never | 55 | 56 | 46 | 34 |
| Total | 100 | 100 | 100 | 100 |
| Directions, recipes |  |  |  |  |
| More than once a week ${ }^{1}$ | (21) | (20) | 24 | (27) |
| Once a week or less | (14) | (14) | 14 | 21 |
| Seldom or never | 65 | 66 | 62 | 52 |
| Total | 100 | 100 | 100 | 100 |

1. Includes "every day".
( ) These estimates have a high error rate.
One possible explanation for the differences between francophones and anglophones lies in the two groups' different employment structure. Reading frequency is likely to indicate not only the relative frequency of the various types of texts used at work but also each language group's particular occupational stratification.

The survey also explored writing practices at work (Table 3.11). In general, employed people write less than they read. Our findings are as follows:

- Letters and memos are the type of texts written most often by francophones: 48\% of them do so more than once a week, though $41 \%$ say they seldom or never do so. They write other types of texts less frequently.

As in the case of reading, the differences between francophones and anglophones in their writing practices at work may be due to different occupational stratifications.

Table 3.11 Frequency of writing at work (in \%) by mother tongue (and place of residence of francophones), employed population aged 16 and over, Canada, 1994

| Materials written | Francophones | Francophones Quebec | Francophones outside Quebec | Anglophones |
| :---: | :---: | :---: | :---: | :---: |
| Letters or memos |  |  |  |  |
| More than once a week ${ }^{1}$ | 48 | 48 | 51 | 46 |
| Once a week or less | (11) | (10) | 13 | (23) |
| Seldom or never | 41 | 42 | 36 | 30 |
| Total | 100 | 100 | 100 | 100 |
| Forms, invoices, etc. |  |  |  |  |
| More than once a week ${ }^{1}$ | 34 | 32 | 41 | 40 |
| Once a week or less | (15) | (15) | 14 | 22 |
| Seldom or never | 52 | 53 | 46 | 38 |
| Total | 100 | 100 | 100 | 100 |
| Reports or articles |  |  |  |  |
| More than once a week ${ }^{1}$ | 43 | 44 | 38 | 29 |
| Once a week or less | (15) | (14) | 19 | 24 |
| Seldom or never | 42 | 42 | 43 | 48 |
| Total | 100 | 100 | 100 | 100 |
| Technical specifications |  |  |  |  |
| More than once a week ${ }^{1}$ | (24) | (24) | (21) | (19) |
| Once a week or less | (15) | (15) | 16 | 16 |
| Seldom or never | 61 | 61 | 63 | 65 |
| Total | 100 | 100 | 100 | 100 |

1. Includes "every day".
( ) These estimates have a high error rate.

The last indicator is the frequency of use of two mathematical operations: taking measurements and doing calculations involving sums of money (Table 3.12). One out of three francophones takes measurements more than once a week, and $38 \%$ perform calculations. On the other hand, nearly six out of ten report that they seldom or never take measurements, and about half of the respondents seldom or never do calculations. Use of mathematical texts in everyday life is less frequent than reading. In both types of operations, the differences between francophones and anglophones remain. Proportionally more francophones do not engage in activities involving measurements or mathematical operations.

| Table 3.12 Frequenc tongue (a aged 16 | Frequency of use of mathematical operations at work (in \%) by mother tongue (and place of residence of francophones), employed population aged 16 and over, Canada, 1994 |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Operation | Francophones | Francophones Quebec | Francophones outside Quebec | Anglophones |
| Measuring, weighting, etc. |  |  |  |  |
| More than once a week ${ }^{1}$ | 32 | 29 | 46 | 50 |
| Once a week or less | (10) | (10) | (9) | 15 |
| Seldom or never | 58 | 61 | 45 | 35 |
| Total | 100 | 100 | 100 | 100 |
| Doing calculations |  |  |  |  |
| More than once a week ${ }^{1}$ | 38 | 37 | 42 | 45 |
| Once a week or less | (13) | (13) | (17) | (22) |
| Seldom or never | 49 | 50 | 41 | 33 |
| Total | 100 | 100 | 100 | 100 |

1. Includes "every day".
( ) These estimates have a high error rate.

### 3.3 Self-assessment of literacy skills

The last dimension concerns the assessment of literacy skills, which can be based on an objective standard (test results) or on a self-assessment by the individual. There are three different indicators for the latter method: self-assessment with regard to one's needs for everyday life, self-assessment with regard to one's needs for work, and degree of satisfaction with one's skills (Tables 3.13 to 3.15 ). Overall, the self-assessment is very positive:

- Most francophones ( $87 \%$ ) consider their reading skills excellent or good (Table 3.13).
- Francophones and anglophones do not differ substantially in their assessment of their reading skills. Three quarters of francophones ( $75 \%$ ) rate their writing skills as excellent or good. This is appreciably lower than the proportion of anglophones who rate their skills highly ( $87 \%$ ).
- A large majority of both francophone and anglophone respondents ( $82 \%$ in both cases) also consider their mathematical skills to be excellent or good.
- Francophones' self-assessment is similar no matter whether they live in Quebec or in other provinces.

Table 3.13 Self-assessment (in \%) of language and mathematical skills for everyday needs, by mother tongue (and place of residence of francophones), population aged 16 and over, Canada, 1994

| Assessment ${ }^{1}$ | Francophones | Francophones Quebec | Francophones outside Quebec | Anglophones |
| :---: | :---: | :---: | :---: | :---: |
| Reading skills |  |  |  |  |
| Excellent or good | 87 | 88 | 86 | 91 |
| Moderate | (8) | (8) | 8 | 7 |
| Poor | 3 | ... | (6) | (2) |
| Total | 100 | 100 | 100 | 100 |
| Writing skills |  |  |  |  |
| Excellent or good | 75 | 75 | 76 | 87 |
| Moderate | 14 | (15) | (12) | (10) |
| Poor | (8) | (7) | 12 | 3 |
| Total | 100 | 100 | 100 | 100 |
| Mathematical skills |  |  |  |  |
| Excellent or good | 82 | 82 | 81 | 82 |
| Moderate | (11) | (11) | 12 | 14 |
| Poor | (5) | ... | 6 | (4) |
| Total | 100 | 100 | 100 | 100 |

1. The "no opinion" category was excluded from this table because of the small number of responses.
... The sample size is too small to produce a reliable estimate.
( ) These estimates have a high error rate.

Francophones' tendency to rate their writing skills lower may be due to a cultural trait of the French-speaking community, since writing in French is widely regarded as difficult.

With regard to self-assessment of skills for work (Table 3.14), over four fifths of francophone respondents rate their reading and mathematical skills as good or excellent in relation to their work requirements. Here again, writing skills are judged more stringently, as seven out of ten respondents give their skills a high rating. However, francophones have a greater tendency than anglophones to acknowledge limitations in their reading and writing skills relative to their job requirements.

Table 3.14 Percentage of people who rate their skills as excellent or good relative to their job requirements, by mother tongue (and place of residence of francophones), population aged 16 and over, Canada, 1994

| Skills | Francophones | Francophones <br> Quebec | Francophones <br> outside | Quebec |
| :--- | ---: | ---: | ---: | ---: |$\quad$ Anglophones

Through the third indicator, francophones reiterate their satisfaction with their reading and writing skills (Table 3.15). Nearly nine out of ten say they are somewhat or very satisfied with their skills, over half being very satisfied. Again, francophones, though very positive in their self-assessment, are not as positive as anglophones.

The similarity between francophones' self-assessment and their test results points to a paradox: with poorer test results than anglophones, proportionally almost as many francophones as anglophones consider their reading and mathematical skills good or excellent, yet proportionally more francophones than anglophones recognize the limitations of their writing skills.

Table 3.15 Degree of satisfaction (in \%) with literacy skills in the interview language, by mother tongue and place of residence of francophones, population aged 16 and over, Canada, 1994

|  | Francophones | Francophones <br> Quebec | Francophones <br> outside |
| :--- | ---: | ---: | ---: | ---: |
| Degebee of satisfaction |  |  |  |$\quad$ Anglophones

[^2]
### 3.4 Summary and general considerations

Our examination of francophones' literacy levels and certain behaviours or attitudes concerning reading and writing presents a rather worrisome picture.

- Francophones are less proficient than anglophones at communication in writing. More of them fall into the lowest literacy levels, and fewer reach the highest levels. Proficiency in the written language is also poorer among francophones outside Quebec, especially in New Brunswick.
- A majority of francophones include reading and writing activities in their everyday lives. Overall, however, they read and write less than anglophones. While the adage "one becomes a good reader by reading" is true, the literacy skill test results must be considered in combination with the fact that reading and writing habits are less ingrained in their everyday lives. The weekly frequency of reading would seem to show that literacy is not very tightly integrated into the everyday lives of an appreciable proportion of francophones.
- There are a number of behavioural differences between francophones outside Quebec and francophones in Quebec. This phenomenon requires further investigation, focusing on the individual communities, since tabulations have shown substantial differences between Quebec and Ontario francophones on one hand and New Brunswick francophones on the other.
- Overall, francophone respondents read more at work than at home, which is worrisome since reading at home depends more on the individual's desire to read. The "book culture", which manifests itself in ownership of books and especially in regular reading habits, is less common among francophones.
- Reading depends on access to written materials. In this regard, francophones use public libraries less than anglophones, and francophones in Quebec use them less than francophones outside Quebec. This distinction may be related to both different cultural habits and the availability of libraries and bookstores. The dearth of public libraries in Quebec is well known, for example.
- Reading is a habit acquired within the family at a young age. While many francophone parents are in favour of family literacy, they are different from anglophone parents in this respect. Several family practices are less common among francophones: reading in front of the children, limiting television watching time, learning to read before Grade 1 , and setting aside compulsory reading periods.
- Most francophones, regardless of place of residence, rate their reading and mathematical skills as excellent or good; this rating is similar to anglophones' self-assessment. Yet this positive self-assessment by francophones seems paradoxical in view of their test results, which are lower than anglophones' results.
In comparison with anglophones, francophones' reading and writing practices are less common, and their associated cultural practices are less frequent. In addition, there is a core of francophone non-readers that hovers between $20 \%$ and $40 \%$ depending on the type of text and the environment (home or work).

Other cultural surveys (e.g., Graves et al., 1992; Quebec Ministry of Culture and Communications, 1998) that used a similar package of indicators corroborate the IALS data concerning the deficits of francophones or Quebeckers. So the problem is not new, and it is complex because it has to do not only with public policies and cultural institutions but also with the perceptions, attitudes and behaviour of a large segment of the francophone population. It seems clear that an individual's literacy level is the result of a combination of life-long factors: introduction to reading and writing in early childhood, formal education, use of reading and writing in everyday life and at work, attitudes toward reading and writing, etc. We can only conclude that the relatively poor showing of francophones appears to result from an accumulation of factors.

At best, the IALS indicators suggest a partial diagnosis. We need to comprehend how these behaviours are ingrained in the lives of individuals and communities. We also need a better understanding of francophones' behaviours and itineraries in their family, work and social lives.

## Chapter 4

## Literacy and Language Transfers

The written language is second to the spoken language as a communication code (Dubois et al., 1973). Therefore, literacy that has to do with written communications cannot be completely dissociated from the spoken language. This observation is particularly true in the Canadian context, where the two official languages in contact do not have the same status. Across the country, minority francophones have to deal with the English language's power of attraction. Except in Quebec, francophone communities experience a variable but significant percentage of language transfers; on average, nearly four out of ten individuals are affected (Table 1.2). One has to wonder if the erosion of spoken French is undermining the use of written French and thus weakening French literacy in Canada.

The relationship between the English and French languages forms a backdrop that is essential to the understanding of literacy in French and hence of the vitality of the francophone community. One component of that backdrop is the phenomenon of francophones who use English in everyday life. The IALS provides information about language transfers in general and a bit of data about the francophones who responded in English.

In this chapter, we will attempt first to comprehend francophones' use of the two official languages. Then we will explore the phenomenon of francophones responding in English.

### 4.1 Use of both official languages and language transfers

The use of both official languages is an indisputable component of the literacy of many francophones. One indicator is the capability to conduct a conversation in different languages (Table 4.1). Bilingualism in Canada's two official languages is primarily a characteristic of francophones: nearly half of them ( $47 \%$ ) say they are able to converse in English, whereas only $10 \%$ of anglophones can do so in French. In addition, there is a significant difference between francophones in Quebec and francophones outside Quebec: 38\% of the former can conduct a conversation in English, compared with $90 \%$ of the latter.

Table 4.1 Ability to conduct a conversation in selected languages (in \%), by mother tongue and place of residence of francophones, population aged 16 and over, Canada, 1994

| Language of conversation | Francophones | Francophones <br> Quebec | Francophones <br> outside |
| :--- | ---: | ---: | ---: | ---: |
| Quebec |  |  |  |$\quad$ Anglophones

... The sample size is too small to produce a reliable estimate.
( ) These estimates have a high error rate.

Another indicator (Table 4.2) is the language in which respondents feel they can express themselves most easily. There is a close correlation with mother tongue, but $43 \%$ of francophones outside Quebec say they express themselves better in English than in French. Moreover, data for Ontario indicate that half of all francophones in the province say they are more comfortable in French, and the other half in English. This major loss of fluency paints a troubling picture of the effect that the "bilingualism" of a significant proportion of francophones can have. In addition, since the written language is secondary to the spoken language, francophones who are less comfortable speaking French than English may have poorer writing skills in French as well.

| Language in which people express themselves best (in \%), by mother tongue and place of residence of francophones, population aged 16 and over, Canada, 1994 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Language in which respondents are most comfortable | Francophones | Francophones Quebec | Francophones outside Quebec | Anglophones |
| English | 10 |  | 43 | 100 |
| French | 90 | 97 | 56 | ... |
| Other | ... |  | ... | ... |
| Total | 100 | 100 | 100 | 100 |

... The sample size is too small to produce a reliable estimate.

The third indicator is the language spoken in various situations (Table 4.3). There is a strong correlation between mother tongue and language used by francophones in Quebec and by anglophones across Canada. The situation is definitely problematic among francophones outside Quebec. For 38\% of them, English is the home language, a phenomenon due in part to the high proportion of exogamous marriages (Lachapelle, 1994). At work or at school, ${ }^{21}$ the language used most often by francophones outside Quebec is English in 54\% of the cases. Even in leisure activities, the proportion of francophones outside Quebec who speak English is high ( $47 \%$ ).

Overall, the home is the place where French is used most. Yet in nearly four out of ten families outside Quebec, English has become the most frequently used language. People who no longer use their mother tongue at home, at work and in leisure activities are likely to lose the ability to speak it and then to write it.

| Table 4.3 Languag residenc | Language used most often in everyday life (in \%) by mother tongue and place of residence of francophones, population aged 16 and over, Canada, 1994 |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Language used most often | Francophones | Francophones Quebec | Francophones outside Quebec | Anglophones |
| Home |  |  |  |  |
| English | 8 | $\ldots$ | 38 | 100 |
| French | 92 | 100 | 61 | ... |
| Other | ... | ... | ... | $\ldots$ |
| Total | 100 | 100 | 100 | 100 |
| Work or school |  |  |  |  |
| English | 12 |  | 54 | 99 |
| French | 88 | 96 | 46 | ... |
| Other | ... | ... | .. | ... |
| Total | 100 | 100 | 100 | 100 |
| Leisure activities |  |  |  |  |
| English | (11) | $\cdots$ | 47 | 99 |
| French | 89 | 97 | 52 | ... |
| Other | ... | ... | .. | ... |
| Total | 100 | 100 | 100 | 100 |

... The sample size is too small to produce a reliable estimate.
( ) These estimates have a high error rate.

### 4.2 Francophones who responded in English

### 4.2.1 Frequency and location

The number of francophones who responded in English is determined by cross-tabulating two variables: mother tongue ${ }^{22}$ and language used in the interview and on the test. For the interview, $92 \%$ of francophones used their mother tongue, and for the test, $90 \%$ (Table 4.4). For both the interview and the test, nearly $89 \%$ of allophones responded in English, and almost all anglophones (almost $100 \%$ ) responded in their mother tongue. English has a strong power of attraction that induces most allophones and many francophones to use it. In families, this attraction manifests itself in the form of language transfers from French to English, which are regarded as an indicator of anglicization.

Moreover, some francophones speak French as a sign of their social identity, but switch to English for communication in writing. Nevertheless, the rate of questionnaire response in English corroborates the erosion of French in oral communications shown by Tables 4.2 and 4.3 on preferred language and language spoken most often. English seems to have become the favoured language of a significant percentage of francophones, not only for oral communications but also for written communications.

Table 4.4 Language used in the interview and on the test (in \%) by mother tongue, population aged 16 and over, Canada, 1994

| Mother tongue | Response language | Interview | Test |
| :--- | :--- | ---: | ---: |
| French | Responded in English |  |  |
|  | Responded in French | 8 | 10 |
|  | Total | 92 | 90 |
|  |  | $\mathbf{1 0 0}$ | $\mathbf{1 0 0}$ |
| English | Responded in English | 100 | 100 |
|  | Responded in French | 0 | $\mathbf{0}$ |
|  | Total | $\mathbf{1 0 0}$ | $\mathbf{1 0 0}$ |
|  |  | 89 | 89 |
|  |  | 11 | 11 |
|  | Responded in English | $\mathbf{1 0 0}$ | $\mathbf{1 0 0}$ |
|  | Responded in French |  |  |

Data on the French response rate by region (Table 4.5) reveal something unique: its uneven distribution across Canada. Except in Quebec, New Brunswick and Ontario, almost all francophones elected to take the test in English. And even in Ontario, English was chosen by a substantial proportion of francophones: nearly a third for the interview and close to half for the test.

Table 4.5 Use of French in the interview and on the test (in \%) by region, adult population with French as mother tongue, Canada, 1994

|  | Atlantic | New Brunswick | Quebec | Ontario | West |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Interview | 2 | 96 | 100 | 68 | 17 |
| Test | 2 | 89 | 99 | 52 | 4 |

### 4.2.2 Relationship between language of response and language used most often

The use of English by francophones to respond to the survey is a symptom of a more general situation: English is the home language of three quarters of such francophones (Table 4.6). The use of English at work or school and in leisure activities is even higher - over 80\% among francophones who were interviewed in English. The reverse is true for those who used French: only $2 \%$ of them speak English at home, less than $10 \%$ do so at work or school, and just over $5 \%$ do so in leisure activities.

## Table 4.6 Percentage distribution of francophones by language used in three settings and language used in the interview, population aged 16 and over, Canada, 1994

| Language spoken | Interview |  |
| :---: | :---: | :---: |
|  | Responded in English | Responded in French |
| Home |  |  |
| English | 76 | $(2,0)$ |
| French | (24) | 98 |
| Other | ... | ... |
| Total | 100 | 100 |
| Work or school |  |  |
| English | 81 | (8) |
| French | (19) | 92 |
| Other | ... | ... |
| Total | 100 | 100 |
| Leisure activities |  |  |
| English | 82 | (5) |
| French | (18) | 95 |
| Other | ... | ... |
| Total | 100 | 100 |

... The sample size is too small to produce a reliable estimate.
( ) These estimates have a high error rate.

Two other indicators, language in which respondents can converse and language they are most comfortable speaking, confirm the predominance of English among francophones who responded in English. Virtually all of them (almost $100 \%$ ) say they can carry on a conversation in English (Table 4.7). While nine out of ten claim to be able to conduct a conversation in French, $80 \%$ say that English is the language in which they express themselves most easily (Table 4.8). Among francophones who responded in French, the corresponding proportion is under $5 \%$.

Hence, most francophones who responded to the survey in English have adopted English as the language they use most often. This is not a case of bilingualism in which individuals sometimes use French and sometimes use English. The preponderance of English at work or school, in leisure activities or at home has a cumulative effect. Socio-educational programs need to take this important contextual and behavioural fact into account.

Table 4.7 Percentage distribution of francophones by language used in the interview and languages in which they can converse, population aged 16 and over, Canada, 1994

| Conversation language | Interview |  |
| :---: | :---: | :---: |
|  | Francophones who responded in English | Francophones who responded in French |
| English | 100 | 43 |
| French | 91 | 100 |
| Other | ... | (3) |

[^3]Table 4.8 Percentage distribution of francophones by mother tongue, language used in the interview and language spoken most easily, population aged 16 and over, Canada, 1994

| Language spoken <br> most easily | Francophoneswho <br> responded in <br> English | Francophones who <br> responded in French |
| :--- | ---: | ---: |
| French | 80 | $(4)$ |
| Other | $(20)$ | 96 |
| Total | $\ldots$ | $\ldots$ |

... The sample size is too small to produce a reliable estimate.
( ) These estimates have a high error rate.

### 4.2.3 Relationship to literacy self-assessment

There is little difference between francophones who responded in English and francophones who responded in French in their self-assessment of their reading and writing skills. However, the high rating that francophones who responded in English gave themselves contrasts with their test results, which are generally lower than the results of both anglophones and francophones who responded in French (Table 1.8).

Table 4.9 Percentage distribution of francophones by language used in the interview and self-assessment of reading and writing skills, population aged 16 and over, Canada, 1994
$\left.\begin{array}{lrr}\hline \text { Assessment } & \begin{array}{c}\text { Francophones who } \\ \text { responded in }\end{array} & \begin{array}{c}\text { Fnglish } \\ \text { responded }\end{array} \\ \hline \text { Reading } & & \text { who }\end{array}\right\}$

[^4]
### 4.3 Summary and general considerations

The data and observations in this section show that the literacy of francophones is influenced by their relationships with English and French.

The distinction between the general literacy of francophones (in French or English) and their literacy in French raises the issue of language spoken most often and, by extension, the issue of language transfers from French to English. Canada's two official languages are in an unequal situation. The correlation between mother tongue and language spoken most often is very strong among anglophones across the country and francophones in Quebec and New Brunswick, but weaker among francophones in other provinces, where English exerts a powerful attraction. Decreased use of the written word in French, which in turn erodes literacy in French, is directly connected with spoken-language transfers. While it is no surprise that English is the language spoken most often at work by many francophones, that it should also be the language used in leisure activities and especially at home is more unexpected. In fact, nearly four out of ten francophones outside Quebec have adopted English as their home language. On the other hand, the fact that some francophones chose to take the written test in English and be interviewed in French illustrates the complexity of the phenomenon.

There is a close relationship between the spoken and written languages. The use of spoken French reinforces the use of the written language, and vice versa. The dominance of English complicates the work of organizations that are trying to improve literacy and basic education in French and refresh the French language skills of francophones who are being anglicized. Thus, an institutional environment that supports the French presence appears to be a necessary condition for the survival of the French fact.

Despite generally poorer results, francophones who responded in English rate their own literacy as highly as anglophones and more highly than francophones who responded in French. Such a discrepancy between perception and reality complicates the task of creating awareness among francophones who are being anglicized. Since the first step in addressing a problem is recognition that there actually is a problem, it will be necessary to instil a twofold motivation in those francophones: (1) acquire literacy or improve their basic education; (2) agree to do so in French.

The results suggest, therefore, that the basic education in French of francophones who are being anglicized is a key factor in the vitality of French in Canada. Since the problem appears to be systemic, a number of stakeholders need to work on the different factors involved (social, political, cultural, educational, etc.), including the individual and collective value (or lack thereof) ascribed to literacy in general and French literacy in particular. Literacy organizations will take a special interest in the factors that influence participation in socio-educational activities in French.

Finally, two caveats need to be borne in mind. First, even though data show that it is problematic, the bilingualism of francophones must not be reduced to a mere problem. Bilingualism is an asset for a community when the individuals involved are proficient in both their mother tongue and their second language. In that case, bilingualism is "additive". Second, anglicization must not be portrayed as the main reason for francophones' low literacy levels. The relatively low literacy level of francophones in Quebec and New Brunswick is part of a context in which francophone communities are rather homogeneous and there is little anglicization. It is important to note, however, that this comparison between the situation of francophones in Quebec and the situation of francophones outside Quebec does not seem to apply in the case of the younger generation. Young francophones in Quebec fare much better than francophones in Ontario, Manitoba and New Brunswick, according to the results of Canada-wide and international examinations administered under the School Achievement Indicators Program (CMEC, 1994).

## Chapter 5

## The Process of Producing Literacy in Francophones

This chapter focuses on the process that leads to language proficiency as measured by tests (prose, document and quantitative). Earlier literacy surveys (Southam News, 1987; Statistics Canada, 1991a and 1996) have shown that there are proportionally more francophones than anglophones at the lowest literacy levels, and proportionally fewer at the highest levels. According to those studies, the ongoing disparities between francophones and anglophones are due primarily to the lower educational attainment of francophones (Statistics Canada, 1996:32-33).

We know that educational attainment is quite important, and that factors such as age and daily reading and writing habits can also affect literacy skills. The issue is to determine what effect these factors have on literacy or what role they play in it and how significant an effect belonging to one of the two language groups has once the other factors are taken into account.

This chapter describes the relative importance of the various factors, especially language group membership, in the process of producing literacy. It identifies the factors that influence the literacy level of individuals while shedding light on the situation of francophones living in minority settings. In the first part of the chapter, we will use regression analysis ${ }^{23}$ to compare the situations of anglophones and francophones, and determine what factors play a part in literacy levels. In the second part, we will make a few general observations and bring in complementary data on participation in adult education. In the third part, we will concentrate on a specific dimension: the relationships between literacy and the economic situation.

### 5.1 Literacy variables and factors in the analysis

The literacy of individuals and communities is influenced by a number of social, cultural and economic factors, aside from education and literacy training. We will use regression analysis to measure the effect that various factors have on the literacy levels of francophones and anglophones, or the contribution they make to it, and to gauge how much belonging to one of the two groups affects the results on the three scales (Box 5.1).

The variables chosen for the analysis are presented in Box 5.2. The dependent variables, the ones we want to explain, are results of the three tests. We have selected 14 possible explanatory factors to be considered as independent variables.

## Box 5.1

## What is regression analysis?

Regression analysis has specific advantages for identifying factors that promote literacy or, conversely, hinder literacy. First, it shows the actual relationship between a factor and the phenomenon being studied, since the influence of the other factors in the model is controlled for. For example, we know that there is a relationship between mother tongue and literacy levels (Statistics Canada, 1996), but we cannot be certain that the relationship is not due to another factor such as education or social background. Regression analysis provides a clearer picture. Another of its advantages is that it does not segment the sample. Thus, it is easier to determine the causality models while avoiding the limitations due to the small number of cases in certain categories.

## Regression analysis provides four additional pieces of information:

- The first is the portion of the variance explained by the factors included in the analysis. For example, our three dependent variables are the results of the three tests: document, prose and quantitative. In each case, the theoretical response is between 0 and 500 . In practice, the difference between responses is smaller. The portion of variance explained $\left(\mathrm{R}^{2}\right)$ is the portion of the observed variation in the dependent variable explained by the factors included in the analysis.
- The second piece of information (marked in the tables with asterisks) is the "reliability" of the relationship between a factor and the dependent variable. This allows us to distinguish the statistically significant relationships from those which are not. We will be focusing on the significant relationships.
- The third piece of information, the non-standardized coefficient (b), is the factor's actual contribution to the test result. This tells us the number of points by which each category or unit in the factor raises or lowers the result. There are two possible scenarios. In the case of variables such as age or years of education, the coefficient indicates the number of points by which each year changes the result. In the case of variables such as sex, the coefficient shows the increase or decrease in points associated with belonging to a given category in comparison with another category known as the reference category. For example, being a woman will boost the prose test result by nearly 10 points.


## Box 5.2

## Variables included in the analysis

| Variables Description |
| :--- | :--- |

## Independent variables

Prose test results
Document test results
Quantitative test results

## Dependent variables

Mother tongue First language learned and still understood: French (reference category = English).

| Minority francophone <br> status | Having French as mother tongue and living outside Quebec <br> (reference category = francophone in Quebec and anglophone in Canada). |
| :--- | :--- |
| Language used in <br> the tests | Taking the tests in English (reference category = taking the tests in <br> French). |


| Highest level of <br> schooling | Some secondary; completed secondary; completed non-university <br> postsecondary; completed university (reference level = completed <br> primary or less). |
| :--- | :--- |
| Parents' educational <br> attainment | Some secondary; completed secondary; completed non-university post- <br> secondary; completed university (reference level = completed primary or <br> less). Highest level of schooling of parents is the higher of the levels <br> attained by the father and the mother. |
| Age | Persons aged 16 to 44 (reference category = persons aged 45 and over). |
| Gender | Female (reference category = male). |
| Index of daily use of | This index is constructed by assigning one point to each response in which <br> the respondent reported having engaged in a reading or writing activity at <br> least once a week (for a possible total of 7 points). The index consists of <br> the following factors: letters or memos; reports, articles, magazines or <br> journals; manuals or reference books, including catalogues; diagrams or <br> schematics; bills, invoices, spreadsheets or budget tables; directions or <br> instructions for medicines, recipes, or other products; writing letters or <br> other materials more than a page long (at least once a week). |


| Using a public library | At least once a year (reference category = never). |
| :--- | :--- |
| Reading newspapers <br> and magazines | At least weekly (reference category = monthly or less). |
| Reading books | At least weekly (reference category = monthly or less). |
| Watching television <br> or videos | One hour or less a day, including people who do not have a television set <br> (reference category = more than one hour a day). |
| Place of residence | Urban area (reference category = living in a rural community). |
| Occupation | Managers and administrators; professionals and related; office work; <br> sales and services; agriculture and specialized trades <br> (reference category = machine operators and related trades) |

### 5.1.1 Factors and variables identified

We selected nine social factors. The first six factors, which are demographic and linguistic in nature, are likely to affect the literacy of individuals and communities: mother tongue, language used for the tests, minority francophone status, gender, age and place of residence. The other three factors are social in nature: respondent's educational attainment and type of occupation and parents' educational attainment (social background and education are closely connected).

With regard to gender, there is a difference in results between men and women. In the IALS, women scored better on the prose test, while men had slightly higher results on the document and quantitative scales. This difference is due in part to a more general factor: the differential socialization and education of girls and boys (Statistics Canada, 1996; DuruBellat, 1990).

Age is a pertinent variable because older people are generally less literate than younger people. Literacy levels increase over time, with each passing generation, as a result of improvements in education. The Canadian IALS report is cautious on this subject, noting that progress in the literacy of young people is not constant on the three scales.

Concerning social background (parents' educational attainment), Lahire (1995) points out that literacy attitudes and skills acquired at home correlate with academic performance. In addition, the relationship between family practices in the various socio-economic milieus and learning to read and write is strongly associated with the emotional bond between parents and children. Thus, the parents' relationship with literacy may contribute to the children's social identity.

Finally, respondents' education plays a major role: all of the surveys reveal a close link between education and reading skills. Education, in fact, is considered an explanatory factor for the differences between men and women, between generations, and between sociolinguistic groups. Our variable is based on level of education rather than years of schooling since, as noted in the Canadian report, the gain in literacy depends on what level one has attained or whether one has graduated (Statistics Canada, 1996:25).

The relationship between type of occupation and literacy is a complex one. The occupational classification is also quite inclusive and general. Nevertheless, we know that some types of occupations involve more use of written materials than others. Having a job of this kind can help individuals maintain or even improve their literacy levels. The converse is also true since some positions require a high level of literacy (professional jobs, for example).

Another series of factors relates to certain cultural practices. We selected frequency of reading and writing certain types of materials (newspapers and magazines, books) and common, everyday materials, since high literacy levels seem to be linked to their use. We also included using a public library and watching television in the list of cultural practices. Some people believe that watching television does not promote reading; time spent doing one cannot be spent doing the other. Yet television is not necessarily negative since it is also a source of information. For francophones, television can be an anglicizing factor, but French television can also facilitate and promote contact with the French language.

### 5.1.2 Results on the prose test

For the most part, our analysis here will focus on the prose test results. The results of the document and quantitative tests are presented in Appendix A. 4 and A. 5 respectively. The variables appear to follow similar patterns, at least for the quantitative model. The document model, on the other hand, has some special features that we will examine more closely.

The first relevant piece of information is the portion of the variance explained $\left(\mathrm{R}^{2}\right)$ by the variables included in the models (Table 5.1). The second piece of information identifies the variables that have a significant effect on the test results (alpha $<0.05$ ) and those which have no significant influence.

- Table 5.1 shows that if we consider only mother tongue (Model 1), the significant difference between the average prose test scores of the two language groups is nearly 30 points, or about $11 \%$. In Model 2 , when the educational attainment is kept constant, its inclusion reduces the gap between the two groups' mean scores by roughly 14 points ( 29.7 - 15.6), a $48 \%$ drop. This suggests that while having English as one's mother tongue still has significant effect, its relative importance is smaller.
- Hence, educational attainment has a substantial impact on the test results. On one hand, we note that the portion of variance explained ( $\mathrm{R}^{2}$ ) is $39 \%$, compared with $6 \%$ for Model 1. On the other hand, we find that people with a secondary education, even without having graduated, score 56 points higher on the prose scale than people with only a primary education. Similarly, people with a university degree do an average of 123 points better on the same scale than people with only a primary education.
- The inclusion of 14 determinants in Model 3 raises the proportion of the variance explained to $51 \%$. With 14 determinants in the model, mother tongue no longer has a significant effect on the mean score. In addition, the difference between the mean scores of the two groups vanishes completely. More importantly, the model reveals that the mean score is not affected by mother tongue alone, but by the combination of being francophone and living in a minority situation. Even if educational attainment and the other variables in the model are kept constant, being francophone in a minority setting lowers the mean score on the prose scale by 17 points.
- Parents' educational attainment has no significant effect on the mean test score when respondents' educational attainment is kept constant. In a hypothetical model involving only parents' attainment and mother tongue as determinants of the test score, parents' attainment would be significantly correlated with the score. The results produced by such a model (not presented here) suggest that if the language group is kept constant, respondents whose parents completed high school would score 47 points higher on the prose scale than people whose parents had only a primary education. The effect of having parents with a university education appears to be much smaller since the same model shows that respondents whose parents graduated from university obtain only 59 more points than respondents whose parents did not go beyond primary school.
- Apart from these two significant factors (respondents' educational attainment and minority status), age still influences the test scores. For example, being under the age of 45 means having a statistically significant 20 extra points on the prose scale. Age affects the test results independently of educational attainment, since the latter's influence is controlled by its presence in the model. At first glance, this observation may seem surprising in view of the close connection between educational attainment and age. Though we cannot prove it, we can hypothesize that not being (or not having been) regularly exposed for some while to written materials of the kind used in the tests may, over time, erode the literacy skills of people in this group, even if they once attained a higher level of schooling. In addition, attainment may be subject to considerable variation in the quality of education.
- The sex of respondents also has a significant effect on the test results. Women have higher scores than men. The average difference is 10 points.
- In addition to socio-demographic elements, a second series of factors has a significant impact on literacy levels. Model 3 confirms that reading books, newspapers and magazines on a regular basis, using a public library, and reading and writing different types of materials regularly have a significant influence on test scores. These results show that even if the other parameters in the model are kept constant:
- people who read newspapers and magazines at least weekly score 17 points higher on the tests than people who seldom or never do so;
- people who read books at least weekly score 15 points higher than those who seldom or never read books;
- people who visit a public library at least several times a year score a significant 11 points higher than respondents who never do so.
- In addition, the index of daily use of literacy skills is also correlated significantly with the test scores. The results show that respondents who reported using one of the seven types of materials that make up the index score 2.3 points higher than those who do not use any of the materials on a regular basis. In other words, people who regularly use all seven items in the index score 16 points higher ( $7 \times 2.3$ ) than those who do not use any on a regular basis. Standardized coefficients suggest that this index's relative contribution to the regression model is comparable to that of using a public library regularly or reading newspapers and magazines regularly.
- An interesting result of Model 3 is the fact that reading and writing on a regular basis have a significant effect on the literacy level of francophones living in a minority setting.
- Watching television and living in a rural area rather than an urban area have no significant impact on individuals' literacy levels when the model's other parameters are kept constant.
- The model's results indicate that occupation alone is not significantly correlated with literacy level. The only significant result concerns managers and administrators. They score nearly 12 points lower than machine operators and related trades. The only possible explanation for such a result is that the occupational categories used are too general. The IALS data also show that the largest proportion of respondents with the lowest literacy level is, paradoxically, in the managers and administrators category. This is probably due to the fact that there are managers and administrators in every sector and at every level of responsibility. In short, the results show that occupation does not play a significant part compared with other much more important variables such as schooling or regular reading and writing habits.
- The results of the regression models for the document and quantitative scales are presented in Appendixes A. 3 and A.4. The results for the document scale are appreciably different from the results for the other two types of text. For one thing, the educational attainment not only of respondents but also of their parents has a significant influence, and for another, most of the other variables related to reading and writing do not. On the quantitative scale, only individuals who have at least one parent with a university degree have results significantly higher than those whose parents have an elementary education. The important variables related to reading on a daily basis also have a significant influence in the model. Finally, even when the other variables in Model 3 are kept constant, people in professional or related jobs distinguish themselves significantly from those who have machine operator jobs.


## Table 5.1 Regression analysis showing the correlation between selected variables and prose literacy test results, population aged 16 and over, Canada, 1994

| Determinants | $\begin{array}{r} \text { Model } \left.\begin{array}{r} 1 \\ b \end{array}\right] \end{array}$ | $\begin{array}{r} \text { Model } 2 \\ b \end{array}$ | Model $\begin{array}{r}3 \\ b\end{array}$ |
| :---: | :---: | :---: | :---: |
| Mother tongue English (ref.) French | - 29.7* | - 15.6* | 0.1 |
| Educational attainment <br> Primary or less (ref.) <br> Some secondary <br> Completed secondary <br> Completed non-university postsecondary <br> Completed university |  | $\begin{array}{r} 55.8^{*} \\ 80.0^{*} \\ 92.2^{*} \\ 122.6^{*} \end{array}$ | $\begin{aligned} & 35.3^{*} \\ & 49.4^{\star} \\ & 55.8^{*} \\ & 78.3^{*} \end{aligned}$ |
| Minority francophone status Non-minority (ref.) Minority |  |  | - 17.0* |
| Language of tests French (ref.) English |  |  | 5.5 |
| Parents' educational attainment <br> Primary or less (ref.) <br> Some secondary <br> Completed secondary <br> Completed non-university postsecondary <br> Completed university |  |  | $\begin{array}{r} 3.9 \\ 6.9 \\ 11.6 \\ 3.2 \\ \hline \end{array}$ |
| Gender Male (ref.) Female |  |  | 9.6* |
| Age 45 and over (ref.) Under 45 |  |  | 19.9* |
| Index of daily use of literacy skills |  |  | 2.3* |
| Using a public library At least a few times a year Never (ref.) |  |  | 10.5* |
| Reading newspapers and magazines At least weekly Monthly or less (ref.) |  |  | 16.5* |
| Reading books At least weekly Monthly or less (ref.) |  |  | 15.1* |
| Watching television More than one hour a day (ref.) One hour or less a day |  |  | 7.0 |
| Place of residence Rural area (ref.) Urban area |  |  | 0.4 |
| Occupation <br> Machine operators and related (ref.) Managers and administrators Professionals and related Office work Sales/services Agriculture/other specialized trades |  |  | $\begin{gathered} -11.7^{*} \\ 11.8 \\ -4.3 \\ 3.0 \\ 0.5 \end{gathered}$ |
| $\mathrm{R}^{2}$ | 0.06 | 0.39 | 0.51 |
| Constant | 289 | 212 | 176 |

* $\mathrm{p}<.05$.


### 5.2 Observations on the results and additional findings

### 5.2.1 Schooling of youths: a significant but problematic variable

Our key finding is the importance of schooling in producing literacy. The better educated people are, the more literate they are. Moreover, education's contribution to literacy varies with level of schooling.

In theory, an increase in schooling should mean higher literacy in general. Yet the expected effect is not a certainty, especially for francophones living in a minority situation. Increased literacy is also a function of educational policies based on accessibility, equity and quality.

However, the actual quality of literacy instruction in francophone educational institutions seems problematic outside Quebec. According to the results of the School Achievement Indicators Program (SAIP), francophone students in Manitoba, Ontario and New Brunswick are below the Canadian average in reading and especially in writing (CMEC, 1994).

### 5.2.2 Adult education and training

The relationship between education and literacy goes beyond family literacy and childhood schooling; it must also include participation in adult education and literacy training. The participation rate varies by language community (Table 5.2). On average, $32 \%$ of Canadians aged 26 and over ${ }^{24}$ took part in a continuing education activity in the 12 months preceding the survey. Anglophones have a higher participation rate than francophones ( $36 \%$ compared with $27 \%$ ). Francophones' participation rate is much the same wherever they live: $26 \%$ in Quebec and $28 \%$ outside Quebec. Francophones are in a sort of "vicious circle". Less educated and less literate than anglophones, they participate less overall in adult education and training.

Francophones' deficits in childhood education are compounded by deficits in continuing education, as confirmed by the present survey (Table 5.2) and other surveys or data on participation in adult education (e.g., Statistics Canada, 1995; Doray and Rubenson, 1997). A special compilation of two recent surveys on participation in adult education ${ }^{25}$ provides some interesting additional insight (Table 5.3):

- No matter what factor is considered, francophones have a lower participation rate than anglophones.
- Between 1993 and 1997, the participation rate declined for all adults, but the decrease was larger for francophones ( -5.4 ) than for anglophones ( -1.7 ) and Canadians as a whole (-2.6).
- Roughly one out of ten adults with some high school or less took part in educational activities, compared with four or five out of ten with a university degree.

Since we also know that the least literate people participate least in continuing education, we are in the problematic situation where differential access to continuing education exacerbates the deficits of illiterate and poorly educated people - and this affects francophones more than anglophones. However, the barriers are also socio-political, and one has to wonder to what extent the "economic" orientation ${ }^{26}$ of adult education, which is characteristic of much recent public policy, has eroded the resources available for literacy and basic skills training.

Table 5.2 $\begin{aligned} & \text { Participation rate (in \%) in adult education and training, by mother tongue (and place } \\ & \text { of residence of francophones), population aged } 26 \text { and over, Canada, } 1994\end{aligned}$

|  | Participation rate |
| :--- | ---: |
| Francophones | 27 |
| Francophones in Quebec | 26 |
| Francophones outside Quebec | 28 |
| Anglophones | 36 |
| Allophones | 22 |
| Total population of Canada | $\mathbf{3 2}$ |

Table 5.3 Participation rate in adult education and training, by language of response, gender, educational attainment and employment status, Canada, 1993 and 1997

|  | Total |  | English |  | French |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1993 | 1997 | 1993 | 1997 | 1993 | 1997 |
| Canada | 30 | 28 | 32 | 30 | 26 | 20 |
| Male | 30 | 27 | 31 | 29 | 25 | 19 |
| Female | 31 | 29 | 33 | 31 | 26 | 21 |
| Employed | 40 | 36 | 41 | 39 | 35 | 27 |
| Unemployed | 17 | 15 | 18 | 16 | 15 | 11 |
| Some secondary school or less | 12 | 11 | 13 | 12 | 10 | 9 |
| Completed secondary school or less | 18 | 16 | 19 | 17 | 14 | 11 |
| Non-university post-secondary | 41 | 34 | 42 | 37 | 39 | 25 |
| University | 52 | 48 | 53 | 50 | 49 | 40 |

Source: Statistics Canada, Adult Education and Training Survey, 1994 and 1998.

### 5.2.3 Other literacy factors for francophones

A number of other factors affect the literacy process among francophones in Canada. Of the variables that mark social divisions, age is the second most important factor after education. The relationship between age and literacy is often associated with a difference in education between generations. But it may also be the result of a generational difference in socialization, partly reflected in the importance of reading and writing in social intercourse. Each generation develops its own relationship with the written word based on its particular social context. Literacy and printed information have a different status in our so-called information society than they had in the 1960s, for example. Hence, two people of different ages will not have, a priori, the same skills and needs vis-à-vis reading and writing. They will receive different signals that cause them to make different investments in literacy.

The relationship between age and literacy may also have to do with occupation and individual history. Literacy evolves throughout a person's life depending on his or her individual circumstances. For example, having a job that involves little reading and writing may erode one's literacy skills. ${ }^{27}$ Another example is the situation of francophones outside Quebec: when they enter the labour force, their use of English increases, which may result in
a loss of proficiency in French. In other words, we can conjecture that the negative correlation between age and the test results is due to the social status of the written language when the various cohorts learned and subsequently used it. That correlation may also be attributable to the historical circumstances (individual and collective) that modulate the use of language in everyday life.

### 5.3 Labour force activity, sociolinguistic belonging and literacy

The relationship between labour force activity and literacy is not a one-way street; each one is capable of influencing the other. Literacy guides one's career by limiting or expanding one's choices of occupation. Conversely, the job one has may encourage the use of reading and writing skills and thus have an effect on literacy. Literacy level affects job opportunities, occupational strategies and individual careers. This reciprocal relationship is illustrated in Tables 5.4 and 5.5.

Tables 5.4, 5.5 and 5.6 explore the impact that literacy levels have on employment status. The test results are regarded as an index of literacy. The higher the results are, the higher the proportion of employed people and the lower the proportion of people not in the labour force.

Table 5.4 Population aged 16 and over by test scale and labour force activity (in \%), Canada, 1994

|  | Employed | Unemployed | Not in labour force | Total |
| :---: | :---: | :---: | :---: | :---: |
| Prose Scale |  |  |  |  |
| Level 1 | (30) | (10) | 60 | 100 |
| Level 2 | 54 | (6) | 40 | 100 |
| Level 3 | 63 | (7) | 29 | 100 |
| Level 4/5 | 73 | ... | (24) | 100 |
| Document Scale |  |  |  |  |
| Level 1 | 28 | (9) | 63 | 100 |
| Level 2 | 55 | (8) | 37 | 100 |
| Level 3 | 64 | (5) | 31 | 100 |
| Level 4/5 | 74 | ... | (21) | 100 |
| Quantitative Scale |  |  |  |  |
| Level 1 | 29 | (10) | 61 | 100 |
| Level 2 | 54 | (8) | 38 | 100 |
| Level 3 | 62 | (6) | 32 | 100 |
| Level 4/5 | 77 | ... | (20) | 100 |
| Total | 56 | 7 | 37 | 100 |

... The sample size is too small to produce a reliable estimate.
( ) These estimates have a high error rate.
However, the sample size makes it difficult to paint a representative picture of the relationship between unemployment and literacy level. Moreover, including retired people in the "not in the labour force" category biases the findings, since a significant percentage of retired people are at the lowest levels of literacy. By using the mean score on a scale from 0 to 500 , Table 5.5 clarifies the relationship between employment status and literacy.

Table 5.5 Mean score by labour force activity and test scale (in \%), population aged 16 and over, Canada, 1994

| Labour force activity | Prose scale | Document scale | Quantitative scale |
| :--- | ---: | ---: | ---: |
| Employed | 288 | 292 | 293 |
| Unemployed | 250 | 252 | 244 |
| Retired | 221 | 212 | 225 |
| Other not in the labour force | 267 | 259 | 264 |

As the table shows, employed people have a much higher mean score on all three scales than unemployed people and, in particular, retired people. The mean scores of working age people who are not in the labour force are higher than the scores of unemployed people. A large proportion of this group consists of students, who generally fared better than people aged 45 and over.

Table 5.6 Mean score by type of occupation and test scale (in \%), population aged 16 and over, Canada, 1994

| Type of occupation | Prose scale | Document | scale |
| :--- | :---: | :---: | :---: | Quantitative scale

Professionals and people in related jobs have the best scores on the tests, while people in farming and related occupations and machine operators have the poorest results. The difference between the mean scores of professionals and machine operators ranges from 64 to 71 points on a 500 -point scale.

Occupation has a bearing on literacy, largely because jobs differ in the amount of reading and writing they require. For example, literacy skills are probably least important in jobs such as raw materials processing, goods handling and machine operation, so it is in those occupations that literacy skills are most likely to atrophy. Literacy also plays a part in employment history. Hiring is usually based on educational attainment, itself strongly correlated with literacy levels. In addition, the recruitment process often includes tests involving reading, writing and arithmetic. Finally, job security increases with literacy levels.

If we look at francophones and anglophones separately (Tables 5.7 and 5.8), we find a similar pattern in the relationship between labour force activity and test results: employed people have higher test scores than unemployed people and people not in the labour force. The differences between the two language communities persist in every activity category; anglophones generally have a higher literacy level for each employment status. However, the poor results, on average, of francophones who are not in the labour force, deserve special attention. Overall, levels of literacy seems to be affected as much by employment status as by membership in one of the language communities. It is also no surprise that the mean scores of retired people are much lower among francophones than among anglophones.

The relationship between occupation and literacy follows the same pattern for francophones as for the Canadian population as a whole (Table 5.8): labourers score lower than professionals. A comparison of francophones and anglophones indicates that the latter have better results regardless of employment status.

In short, while the relationship between literacy levels and economic status is similar in the two major language communities, the differences between them remain: francophones obtain much lower scores on the tests than anglophones. Thus, mother tongue and employment status have their own bearing on respondents' literacy levels.

Finally, for each socio-occupational status, anglophones are, overall, more literate than francophones.

Table 5.7 Mean score by labour force activity, mother tongue and test scale (in \%), population aged 16 and over, Canada, 1994

| Labour force activity | Mother | tongue | Prose scale | Document scale | Quantitative scale |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Employed | French | 280 | 284 | 285 |  |
|  | English | 303 | 305 | 305 |  |
| Unemployed | French | 242 | 237 | 238 |  |
|  | English | 275 | 273 | 269 |  |
| Retired | French | 203 | 189 | 204 |  |
|  | English | 243 | 237 | 244 |  |
| Other not in the labour force | French | 262 | 257 | 258 |  |
|  | English | 288 | 282 | 281 |  |

Table 5.8 Mean score by type of occupation, mother tongue and test scale (in \%), population aged 16 and over, Canada, 1994

| Type of occupation | Mother tongue | Prose scale | Document scale | Quantitative scale |
| :--- | ---: | ---: | ---: | ---: |
| Managers and administrators | French | 232 | 227 | 232 |
|  | English | 269 | 266 | 270 |
| Professionals and related | French | 306 | 321 | 318 |
|  | English | 327 | 326 | 331 |
| Office work | French | 286 | 288 | 283 |
|  | English | 297 | 303 | 295 |
| Sales/services | French | 273 | 277 | 271 |
|  | English | 301 | 295 | 293 |
| Agriculture/related trades | French | 263 | 253 | 267 |
|  | English | 279 | 287 | 283 |
| Machineoperators/related trades | French | 247 | 250 | 245 |
|  | English | 279 | 279 | 280 |

### 5.4 Summary

The findings of this chapter complement those of previous chapters. Certain cultural practices and social divisions affect the literacy of francophones. Moreover, since literacy and literacy training manifest themselves in often more specific ways in francophones than in anglophones, it is important to develop special strategies for francophones while incorporating elements related to their regional, provincial and local integration.

Education (in French) must be valued by all francophones: by the community, by parents and by children. Schools must assume a substantial role that is both complementary and compensatory: first and foremost for young people from a social and parental environment with little academic and "cultural" capital, and for young people whose literacy in French is poor. Otherwise, well after their childhood education, adults will probably have to upgrade their basic skills through adult education programs (in French).

With regard to literacy outside the schools, the need for family literacy instruction was emphasized earlier (section 3.2.2). In addition, the benefits of reading newspapers, magazines and books probably deserve more attention from cultural and literacy organizations. The impact of reading different kinds of texts confirms the need to encourage individuals to read a wide variety of written materials, and to learn to decode types of materials with which they are less familiar (diagrams, for example).

Finally, the relationships between literacy and employment also highlight a special challenge for francophones, who need to take action on both fronts. On the employment side, is there not a need for a more thorough analysis of the fact that many bilingual francophones have better jobs and higher incomes precisely because of their bilingualism? That advantage does not show up in the data for francophones as a group. There is every reason to believe, however, that genuine, "additive" bilingualism in French and English would be an asset for a considerable number of francophones.

## Conclusion and Outlook

Canada's francophones are largely the product of a traditional society characterized by an oral tradition, poor education and lower socio-economic status, as noted in 1969 by the Royal Commission on Bilingualism and Biculturalism. In only a few decades, their situation has changed radically. Francophones are engaged in a process of transition and catching-up that, in the educational arena, is still incomplete. A strategic facet of their evolution is their transition to a knowledge society, to an educative society where they will improve their oral and written proficiency in the language while energizing and modernizing their culture.

In this final section, we will recapitulate the major findings of our study and then make a few observations on the present survey and the next one.

## Francophone literacy: a vulnerable situation

On most of the IALS indicators, francophones fare worse than anglophones. The data reveal a set of factors that cumulatively paint a rather problematic picture, into which is etched a formidable cultural and literacy challenge.

Overall, the literacy of francophones seems to be typified by vulnerability, in that a large proportion of them still have marginal reading and writing skills, and few of them have superior skills. The vulnerable nature of francophone literacy is supported by a number of findings:

- More than half of all francophones are at the lowest literacy levels (1 and 2); level 3 is considered the prerequisite for most occupations. What's more, there are proportionally about half as many francophones as anglophones at the highest level (4/5).
- On every test, francophones who responded in English have lower scores than francophones who answered in French. This result could be an example of subtractive bilingualism. In addition, the results show that outside Quebec, francophones who took the test in English but use French most often at home generally have poorer scores than francophones who took the test in English and usually speak that language at home.
- Francophones in Quebec and Ontario have better results than other francophones. There are proportionally more minority francophones at level 1 (the lowest level) and fewer at levels 3, 4 and 5 than francophones as a group.
- The greatest difficulties are in Eastern Canada: $60 \%$ of francophones there are at levels 1 and 2. The situation of francophones in New Brunswick appears to be exceptional and critical; three quarters of them are at levels 1 and 2 on all three tests.
- Francophones are below the average of adults who took part in the IALS in industrialized countries. The inferior position is true not only of all francophones as a group but also of each of the sub-populations studied: Quebec, Ontario and especially New Brunswick.
- On the whole, francophones read and write less than anglophones.
- Francophones read more at work than at home, which may indicate less personal interest in reading.
- Francophones use public libraries less than anglophones This is probably due to cultural factors and, for francophones outside Quebec at least, the insufficient number of French libraries available. As a result, access to written materials is limited, and they do less reading.
- Family literacy instruction is more common among anglophones than among francophones. Francophones engage less frequently in activities such as parents reading while their children are watching, children learning to read before Grade 1, and parents setting aside reading time for the children.
- Overall, there appears to be a hard core of francophone non-readers consisting of at least $20 \%$ of the adult population. A number of studies of the IALS have shown that many of those adults are marginalized or socially excluded.
In short, compared with anglophones, francophones are less proficient at reading and writing, read less often and are less likely to include reading and writing as part of their daily activities. Although the improvement in education and literacy among young people is encouraging, it is having little impact on the literacy picture as a whole. Between 1989 and 1994, francophones' overall results did not get significantly better, and the gap between anglophones and francophones remained much the same.

The generally lower literacy of francophones outside Quebec is, in many cases, related to difficulties that show up first in oral expression. The incidence of this problem is significant, as nearly $40 \%$ of francophones outside Quebec have switched to English as the language they use most often. Moreover, the "bilingualism" of many of these francophones is more akin to a loss of oral and written communication skills in their mother tongue. The transfer to English is seen not only at work but also in recreational activities and at home. But language transfers are not the only factor involved, as indicated by the low literacy of New Brunswick Acadians, most of whom live in areas where francophones are in the majority.

Nevertheless, the tenuous literacy situation does not appear to be widely perceived by those concerned. Whether they live in Quebec or another province, most francophones have a very high opinion of their reading skills, with which they claim to be satisfied (though they rate their writing skills somewhat lower). Such optimism flies in the face of their test scores, which are lower than anglophones' scores.

## The present survey and the next one

The IALS has a number of limitations that hamper efforts to understand francophone literacy. A number of results also raise more questions than they answer. Nevertheless, avenues remain to be explored in the 1994 IALS data. And the next survey in 2003 promises to provide more information about the situation of francophones.

With regard to the present survey (and the 1989 LSUDA survey), data about francophones are available that are worth analyzing. For example, there has been no indepth study of New Brunswick francophones in 1989 and 1994, Quebec francophones in 1989, or Ontario francophones in 1994.

As for the next survey, since francophone literacy is problematic in many respects, the significant increase in the francophone sample and the addition of a specific language module
should provide additional valid data that will assist in the preparation of a better-informed diagnosis and the development of appropriate policies.

Ideally, the next literacy survey will enable us to carry out the same analyses and statistical processing for francophones as for the entire population of Canada.

At the same time, the expertise of francophone researchers in studying the data from the IALS and similar surveys would improve with additional analysis.

Other avenues are also possible and desirable, such as exploring in detail the distinction between literacy in French and general francophone literacy through the analysis of a small sample of the French and English literacy levels of francophones who tend to use English most often. It would also be interesting to compare the data for the francophone group with the data for other societies characterized by linguistic duality or plurality (Belgium or Switzerland).

A number of results produced by the survey and by our analysis merit further study, including the following:

- the influence of a number social and demographic dimensions that we have not explored (e.g., the effect that continuing education or the location where childhood education was received has on literacy level);
- the relationship between economy and literacy;
- the literacy instruction practices of families by socio-economic and socio-cultural characteristics;
- the relationship between francophones' social status and their reading habits;
- the modes of accessing written materials (owning books and newspapers, and using libraries);
- the relationship between television watching and reading behaviour.

Nevertheless, it may be useful to keep in mind the limits of the various data on measurable or quantifiable phenomena. Like the tips of icebergs, these data are the manifestation of complex realities, and they reveal only part of those realities. What's more, they provide little information about dimensions that are difficult to measure but critical. Such dimensions would include francophones' attitudes toward literacy and how important their language (both oral and written) is to them.

The value that francophones place on their language and culture may very well be the ultimate factor behind not only the observed literacy "deficits" but also the progress that could and should eventually be made.

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## Appendix A. 1

## Principal dimensions of the survey covered by the core questionnaire (interview)

| Dimensions | Questions and main indicators |
| :---: | :---: |
| Socio-demographic characteristics | - Age <br> - Gender <br> - Place of residence (province, size of community of residence) <br> - Place of birth <br> - Marital and family status |
| Social background | - Birthplace of parents <br> - Educational attainment of parents <br> - Father's occupation |
| Respondent's previous education | - Level of education <br> - Place of education <br> - Type of training programs |
| Language information | - Mother tongue(s) <br> - Self-assessment of literacy in mother tongue <br> - Language used most often at home, at work or in recreational activities <br> - Conversation languages <br> - Language of highest proficiency |
| Respondent's employment situation | - Labour force activity <br> - Place of work <br> - Employment status and job characteristics |
| Participation in adult education activities | - Participation in activities <br> - Nature of activities <br> - Length of activities <br> - Goals of participation <br> - Characteristics of activities |
| Literacy practices at work | - Frequency of reading texts of different types <br> - Frequency of writing different texts <br> - Frequency of using quantitative data <br> - Self-assessment of literacy skills relative to job requirements |
| Literacy practices outside work | - Frequency of reading texts of different types <br> - Frequency of writing different texts <br> - Frequency of using quantitative data <br> - Self-assessment of literacy skills relative to everyday requirements <br> - Frequency of participating in cultural activities, reading ordinary texts and using libraries <br> - Frequency of watching television <br> - Written materials at home <br> - Parts of newspaper read <br> - Requests for help with literacy tasks <br> - Family reading habits |
| Miscellaneous | - Personal and family income <br> - Information about visual or hearing impairment |

[^5]
## Appendix A. 2

## Literacy Levels

One of the survey's features was the direct assessment of literacy skills used by Canadians in daily life, at work or at home. The assessment was based on everyday tasks. It consisted of exercises at various levels of difficulty representing reading and writing situations that could be encountered in everyday life. Most importantly, however, the survey included a reading test with texts of different types. Thus, even though literacy is a broader concept at the theoretical level, it was agreed that it would be measured empirically by tests that assessed a common (to all countries) set of skills needed to carry out certain tasks. These skills were divided into three main categories: prose literacy, document literacy and quantitative literacy.

The three types of text also measure specific aspects of information processing. The results of each test were placed on a scale of 0 to 500 points, which was split into five levels for each type of text. The higher the level - 1 being the lowest and 5 the highest - the greater the skills and abilities required to process the information. A variety of tasks were selected for each level. The tasks were assigned to a particular level on the basis of the probability that a respondent at that level would carry out the tasks correctly $80 \%$ of the time. They were also categorized by level according to the point score assigned to them in advance: level 1 is between 0 and 225 points, level 2 between 226 and 276, and so on up to 500. Each respondent's literacy level was determined by the number of correct or incorrect answers on the various tasks in the test.

## Scale score ranges and task samples

| Level | Score | Prose | Document | Quantitative |
| :---: | :---: | :---: | :---: | :---: |
| 1 | 0-225 | Use the instructions on the bottle to identify the maximum duration recommended for taking aspirin. | Identify the percentage of Greek teachers who are women by looking at a simple pictorial graph. | Fill in the figure on the last line of an order form, "Total with Handling," by adding the ticket price of $\$ 50$ to a handling charge of $\$ 2$. |
| 2 | 226-275 | Identify a short piece of information about the characteristics of a garden plant, from a written article. | Identify the year in which the fewest Dutch people were injured by fireworks, when presented with two simple graphs. | Work out how many degrees warmer today's forecast high temperature is in Bangkok than in Seoul, using a table accompanying a weather chart. |
| 3 | 276-325 | State which of a set of four movie reviews was the least favourable. | Identify the time of the last bus on a Saturday night, using a bus schedule. | Work out how much more energy Canada produces than it consumes, by comparing figures on two bar charts. |
| 4 | 326-375 | Answer a brief question on how to conduct a job interview, requiring the reader to read a pamphlet on recruitment interviews and integrate two pieces of information into a single statement. | Summarize how the percentages of oil used for different purposes changed over a specified period, by comparing two pie charts. | Calculate how much money you will have if you invest $\$ 100$ at a rate of $6 \%$ for 10 years, using a compound interest table. |
| 5 | 376-500 | Use an announcement from a personnel department to answer a question that uses different phrasing from that used in the text. | Identify the average advertised price for the best-rated basic clock radio in a consumer survey, requiring the assimilation of several pieces of information. | Use information on a table of nutritional analysis to calculate the percentage of calories in a Big Mac® that comes from total fat. |

Source: Statistics Canada, 1996.

## Appendix A. 3

|  | Document Scale |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Level 1 | Level 2 | Level 3 | Level 4/5 |
| Canada | 18 | 25 | 32 | 25 |
| Canada (French) | 21 | 29 | 34 | 17 |
| Canada (English) | 10 | 23 | 36 | 31 |
| Canada (other) | 42 | 26 | 15 | 17 |
| Quebec (French) | 20 | 29 | 34 | 17 |
| Ontario (French) | 24 | 30 | 30 | 16 |
| New Brunswick (French) | 28 | 31 | 27 | 14 |
| Germany | 9 | 33 | 40 | 19 |
| Netherlands | 10 | 26 | 44 | 20 |
| Poland | 45 | 31 | 18 | 6 |
| Sweden | 6 | 19 | 40 | 36 |
| Switzerland (French) | 16 | 29 | 39 | 16 |
| Switzerland (German) | 18 | 29 | 37 | 16 |
| United States | 24 | 26 | 31 | 19 |
|  | Quantitative Scale |  |  |  |
| Canada | 17 | 26 | 35 | 22 |
| Canada (French) | 18 | 34 | 36 | 13 |
| Canada (English) | 10 | 23 | 39 | 29 |
| Canada (other) | 41 | 26 | 20 | 14 |
| Quebec (French) | 18 | 34 | 36 | 12 |
| Ontario (French) | 20 | 33 | 35 | 12 |
| New Brunswick (French) | 21 | 38 | 31 | 11 |
| Germany | 7 | 27 | 43 | 24 |
| Netherlands | 10 | 26 | 44 | 20 |
| Poland | 39 | 30 | 24 | 7 |
| Sweden | 7 | 19 | 39 | 36 |
| Switzerland (French) | 13 | 25 | 42 | 20 |
| Switzerland (German) | 14 | 26 | 41 | 19 |
| United States | 21 | 25 | 31 | 23 |

## Appendix A. 4

Regression analysis showing the correlation between selected variables and document literacy test results, population aged 16 and over, Canada, 1994

| Determinants | $\begin{array}{r} \text { Model } 1 \\ b \end{array}$ | Model 2 b | Model 3 |
| :---: | :---: | :---: | :---: |
| Mother tongue |  |  |  |
| English (ref.) |  |  |  |
| French | -28.5 | -13.0* | -4.2 |
| Educational attainment |  |  |  |
| Primary or less (ref.) |  |  |  |
| Some secondary |  | 59.4* | 35.8* |
| Completed secondary |  | 92.6* | 56.0* |
| Completed non-university postsecondary |  | 108.1* | 66.2* |
| Completed university |  | 130.6* | 77.8* |
| Minority francophone status |  |  |  |
| Non-minority (ref.) |  |  |  |
| Minority |  |  | -17.1* |
| Language of tests |  |  |  |
| French (ref.) |  |  |  |
| English |  |  | -2.0 |
| Parents' educational attainment |  |  |  |
| Primary or less (ref.) |  |  |  |
| Some secondary |  |  | 12.5 |
| Completed secondary |  |  | 18.1* |
| Completed non-university postsecondary |  |  | 20.1* |
| Completed university |  |  | 18.9* |
| Gender |  |  |  |
| Male (ref.) |  |  |  |
| Female |  |  | -4.4 |
| Age |  |  |  |
| 45 and over (ref.) |  |  |  |
| Under 45 |  |  | 26.3* |
| Index of daily use of literacy skills |  |  | 2.0 |
| Using a public library |  |  |  |
| At least a few times a year |  |  | 7.5 |
| Never (ref.) |  |  |  |
| Reading newspapers and magazines 16.9 |  |  |  |
|  |  |  |  |
| Monthly or less (ref.) |  |  |  |
| Reading books |  |  |  |
| At least weekly |  |  | 9.5 |
| Monthly or less (ref.) |  |  |  |
| Watching television |  |  |  |
| More than one hour a day (ref.) |  |  |  |
| One hour or less a day |  |  | -0.5 |
| Place of residence |  |  |  |
| Rural area (ref.) |  |  |  |
| Urban area |  |  | 3.3 |
| Occupation |  |  |  |
| Machine operators and related (ref.) |  |  |  |
| Managers and administrators |  |  | -6.6 |
| Professionals and related |  |  | 16.6 |
| Office work |  |  | 5.2 |
| Sales/services |  |  | 4.7 |
| Agriculture/other specialized trades |  |  | -3.0 |
| $\mathrm{R}^{2}$ | 0.04 | 0.39 | 0.48 |
| Constant | 288 | 202 | 175 |

* $\mathrm{p}<.05$.


## Appendix A. 5

Regression analysis showing the correlation between selected variables and quantitative literacy test results, population aged 16 and over, Canada, 1994


| Minority francophone status |
| :--- |
| Non-minority (ref.) |
| Minority |

Language of tests
French (ref.)
English

| Parents' educational attainment | 6.2 |
| :--- | ---: |
| Primary or less (ref.) | 10.9 |
| Some secondary | 9.2 |
| Completed secondary | $14.9^{*}$ |
| Completed non-university postsecondary |  |
| Completed university |  |

Gender
Male (ref.)
$\qquad$
\(\left.\begin{array}{lr}Age <br>
45 and over (ref.) <br>

Under 45\end{array}\right]\)| Index of daily use of literacy skills | 1.7 |
| :--- | ---: |
| Using a public library |  |
| At least a few times a year | $22.5^{*}$ |
| Never (ref.) | 2.7 |
| Reading newspapers and magazines |  |
| At least weekly |  |
| Monthly or less (ref.) | $16.8^{*}$ |
| Reading books |  |
| At least weekly |  |
| Monthly or less (ref.) | $8.5^{*}$ |

Watching television
More than one hour a day (ref.)
One hour or less a day

| Place of residence <br> Rural area (ref.) <br> Urban area |  |
| :--- | :--- |
| Occupation <br> Machine operators and related (ref.) <br> Managers and administrators <br> Professionals and related <br> Office work <br> Sales/services <br> Agriculture/other specialized trades | 2.1 |
| $\mathbf{R}^{2}$ | 0.05 |
| Constant | 289 |

* $p<.05$.


## Footnotes

2 The total fertility rate was 1.57 children per francophone woman outside Quebec, compared with 1.70 for all language groups combined (Marmen and Corbeil, 1999, p. 63).
3 These comments on the new economy have to be put into context, however. Even today, many industries employ less literate workers in low-paying jobs. Studies of IALS data also indicate that reading frequency is low in many jobs (OECD and Statistics Canada, 1995; Statistics Canada, 1996). On the other hand, workers in those positions are vulnerable and have little job security.
4 Respondents whose first language learned and still understood is French are considered francophones (no matter which language they used in responding to the survey).
5 The Southam survey was based on the same methodology later used in the Statistics Canada and OECD studies. The results were placed on a graduated four-level scale. The term "illiterate" was used to describe adults in the first two levels: those who were barely able to read, and those who did not have the reading, writing and counting skills to cope with daily life (Southam, 1987).
6 This question will be covered in greater depth in Chapter 4, which deals with language transfers.
7 Note that level 4 in the 1989 survey is approximately equal to a combination of reading skill levels 3 , 4 and 5 in the 1994 survey. The 1989 survey's aim was to measure the lower literacy levels in particular, while the 1994 survey was primarily intended to draw a clearer distinction among the higher levels (levels 3 and 4 in the 1989 survey).
8 The poor performance of francophones who answered in English may be a manifestation of the previously mentioned "subtractive bilingualism", which occurs when the transfer from French to English results in literacy deficits in both the first and second languages.
9 The comparison of youths by region raises problems with the validity of the findings from a linguistic perspective. The data provide no information about the results of francophones outside Quebec. Furthermore, the Quebec sample, though mostly composed of francophones, also includes anglophones and allophones.
10 Adults over the age of 69 were removed from the IALS results.
11 For that reason, people who failed to respond to the "essential tasks" were assigned to Level 1.
12 As noted in the Canadian IALS report (p. 14), the IALS test items have the "collective capacity to predict, with a high degree of certainty, whether a respondent would be able to handle unfamiliar texts with similar attributes of difficulty." By testing the reading skills of adults, the "IALS deals both with text and print decoding skills, and with decision skills."
13 In contrast to the Canadian report, we included respondents who reported two mother tongues (one of them French) as francophones. We will discuss this further in Chapter 4.
14 Note, however, that francophones in New Brunswick are in a different situation from francophones in Ontario and the Western provinces. The former are mostly concentrated in the part of the province where they are in the majority, whereas the latter are usually scattered and in the minority in their localities.
15 This equality may be due to interprovincial mobility, which appears to be high among the well-educated.
16 Unlike the 1989 sample, the 1994 sample is not large enough to produce reliable estimates for Anglo-Quebeckers.
17 The results presented here are for prose literacy only. For the document and quantitative results, see Appendix A. 3 .
18 The question provides several response choices for frequency of participation. Because of the sample size, we grouped the responses into two categories: those who have taken part in an activity, and those who have not.
19 The language in which the reading and writing activities were performed is important for the understanding of literacy. Unfortunately, that information was collected only by the Franco-Ontarian questionnaire.
20 Since few respondents reported having difficulties, we grouped them into a single category. For that reason, we cannot analyze the frequency of requests for assistance.
21 Unfortunately, the absence of a distinction between school and work makes it impossible to determine whether school attendance promotes the use of French in communities and whether entry into the labour market is actually an assimilation factor. These questions are crucial for francophones.

## Literacy and Literacy Training of Francophones in Canada

22 Respondents were permitted to report two mother tongues. As noted earlier, all respondents who reported French as one of their mother tongues were included in the French mother tongue category. This accounts for the slight difference between our estimate and the one in the Canadian report (Statistics Canada, 1996), but it introduces a bias in our data, since there can be no language transfer in the case of people whose mother tongue is both English and French. Because of the small number of respondents involved, however, this bias has no significant effect on our data.
23 Jean-Pierre Corbeil of Statistics Canada developed the regression model and prepared the table of results produced by the model and the tables of mean scores. He also contributed to the analysis.
24 We selected the 26 -and-over group to ensure that the reference population would consists entirely of adults.
25 The data are based on language of response because respondents were not asked about their mother tongue.
26 This refers to the narrower focus in planning education policies and resources to meet near-term labour market requirements (Bélanger and Tuijnman, 1997).
27 The lower economic status of French-Canadians, recognized by the Royal Commission on Bilingualism and Biculturalism in 1969 , is also likely to have affected the older generations, larger number of whom were employed in manual jobs.


# International Adult Literacy Survey 

## Monograph Series

The International Adult Literacy Survey (IALS) was a sevencountry initiative conducted in the fall of 1994. Its goal was to create comparable literacy profiles across national, linguistic and cultural boundaries. Successive waves of the survey now encompass close to 30 countries around the world.

The Monograph Series features detailed studies from the IALS database by literacy scholars and experts in Canada and the United States. The research is primarily funded by Human Resources Development Canada. Monographs focus on current policy issues and cover topics such as adult training, literacy skill match and mismatch in the workplace, seniors' literacy skills and health, literacy and economic security, and many others.



[^0]:    Source: Southam News, 1987:116.

[^1]:    1. Includes "every day".
    ... These estimates have a high error rate.
[^2]:    ... The sample size is too small to produce a reliable estimate.
    ( ) These estimates have a high error rate.

[^3]:    ... The sample size is too small to produce a reliable estimate.

[^4]:    The sample size is too small to produce a reliable estimate.
    ( ) These estimates have a high error rate.

[^5]:    Source: Statistics Canada, 1996

