

# Chapter 1

## **The Why, What and How of the ALL Survey**

## Table of Contents

---

### Chapter 1

<b>The Why, What and How of the ALL Survey</b>	<b>23</b>
--	-----------

---

1.1 Goals of the ALL survey	25
-----------------------------	----

1.2 The conceptual approach to the ALL survey	26
---	----

---

References	28
------------	----

---

# The Why, What and How of the ALL Survey

## 1.1 Goals of the ALL survey

*The first and most important goal of the study is to shed light on the twin processes of skill gain and loss in adult populations.* For the countries for which repeat measures are available, research can explore changes that may have occurred in the level and distribution of skills since the IALS data were collected; and identify concomitant changes in population groups whose level of prose and document skills place them at a relative disadvantage in the labour market and other life contexts.

In general, one expects the quality of the skills supply to increase over time in response to increases in the incidence, average duration and quality of initial and post-secondary education as well as adult learning. The IALS data confirms this expectation — the quality of the skill supply is determined by a host of factors that influence the rate of skill acquisition over the life course, from before birth through old age. An important insight is the fact that education and experience do not “fix” a person’s skill level for life. Personal choice and differences in the nature of skill demand can lead to skill acquisition, skill maintenance or significant skill loss in adulthood. The IALS data indeed suggest that a significant skill loss in adulthood can occur — losses that may be related to low levels of skill demand at work, at home and in the community.

Skill loss represents a serious problem for individuals, social institutions and governments because it erodes the economic and social return on educational investments and hampers productivity and economic growth. With the ALL data, these important assumptions and hypotheses about the presence, likely causes and possible social and economic consequences of skill loss and deterioration can finally be explored empirically for Canada, Italy, Norway, Switzerland and the United States.

*The second major goal of the ALL is to profile and compare, for the first time, the level and distribution of directly assessed numeracy skills among adult populations in participating countries.* The ALL assessment replaces the quantitative literacy domain used in IALS with a broader and more robust numeracy measure that reflects better the range of numerate behaviours that confront adults in their daily lives.

*The third major goal pursued by the ALL study is to profile and compare the level and distribution of problem solving skills among the adult populations of the countries surveyed.* The Definition and Selection of Key Competencies (DeSeCo) programme of work (Rychen and Salganik, 2001, 2003) identified several clusters of distinct skill domains on the basis of theoretical extrapolation. This pioneering work concludes that a wider range of skills, attitudes and values about learning should be considered in international comparative surveys. Accordingly, beyond introducing an improved measure of numeracy skill, a key goal of ALL was to develop a theoretical framework that could serve as a basis for measuring additional skill domains. A substantive effort was made to develop frameworks and measures for team work skills, practical cognition, and information and communication technology (ICT) skills. But only the problem solving domain was shown to meet the high empirical standards set for directly assessing skills in the ALL study. Indirect measures of ICT skills were nevertheless retained in the final design (Statistics Canada, 2005).

*A final set of goals relate to the design of the background questionnaire used to collect information on the antecedents of skill and their outcomes.* The IALS study was the first international study to collect comparable data on participation in formal adult education. The analysis of this data advanced our understanding of the importance of adult learning in building skills but interpretation was hindered by the lack of measures capturing the broader contexts of life long and life wide learning. Accordingly the ALL background questionnaire was deliberately designed to profile formal, non-formal and informal adult learning and its social distribution.

Information on skill demand was also collected through questions asking about skill use at work, at home and in the community. These measures can reveal the importance of the skills measured, but only if the appropriate outcome measures are also available. Hence the final goal of the ALL study was to collect data that allows for an analysis of the relationships between skill and outcomes ranging from labour market participation and earnings, to physical and mental health, and engagement in community activities.

## 1.2 The conceptual approach to the ALL survey

The ALL study embodies a conceptual approach that includes elements of skill demand, skill supply and markets for skill. Adopting such an approach allows one to profile the nature of skill supply and demand. An important assumption is that different life contexts – work, home and the community – impose skill demands on individuals. Directly observed measures of skill such as those in ALL reflect the supply of economically and socially important skills. ALL also seeks to understand how skills influence the level and distribution of outcomes, whether economic, social or environmental. See *Measuring Adult Literacy and Life Skills: new Framework for Assessment* (2005) for further details on the conceptual framework used in the ALL study.

Changes in skill demand can be traced to two sources – externally imposed and internally imposed changes. Externally imposed ones result from changes in technology and work organization, consumer markets and social institutions. While there is a consensus that skill demand is rising in all life contexts – work, home and the community – it is also the result of individual life circumstances. Internally motivated changes in skill demand flow from two sources –

modifications in individual and collective aspirations and as a natural consequence of a person's passage through stages of life.

Changes in skill supply are a consequence of demographic shifts and trends in the social systems that support skill acquisition and maintenance. Education reform is the most obvious factor contributing to changes in the supply of skill. However, other factors also play an important role (OECD and HRDC, 1997). These include socio-economic development, participation in tertiary education and its quality, as well as adult education and training. All these factors have a marked impact on the quality of the skill supply.

The ALL approach allows one to gauge the efficiency of markets, which match the supply of, and demand for skills. The notion of markets embodied in the study extends beyond goods, services and labour. It also includes health care delivery and the exchange of social goods and services such as unpaid work in the family and the community. The available evidence suggests that markets for skill are reasonably efficient in recognizing and rewarding skill. However, the degree to which skills impact outcomes can vary depending on the country.

Skill loss is also an observed reality. It is assumed that this loss is related to variations in skill use in differing life contexts. Individual and collective choices can also play a role. Differences exist in the extent to which countries nurture life long learning. Skill loss implies educational opportunity costs and leads one to reflect on the need to balance supply-side intervention with measures to increase skill demand. The phenomenon of skill loss justifies the need to repeatedly measure adult skills. If initial education fixed skills for life then student assessments, such as the one organised under the auspices of the Programme of International Student Assessment (PISA), would be all that would be required.

Policy makers want to understand the nature of skill deficits and devise mitigating strategies. The predominance of change requires policy makers to better appreciate the rates at which skills evolve, the forces that underlie change and the impact that change will have on key outcomes. In summary, ALL seeks to add to what is known about the scope of public policy in influencing the level and distribution of skills in society.

## References

- OECD and HRDC (1997), *Literacy Skills for the Knowledge Society: Further Results from the International Adult Literacy Survey*, Paris and Hull.
- Rychen, D.S. and Salganik, L.H. (eds.) (2001), *Defining and Selecting Key Competencies*, Hogrefe and Huber Publishers, Göttingen.
- Rychen, D.S. and Salganik, L.H. (eds.) (2003), *Key Competencies for a Successful Life and a Well-functioning Society*, Hogrefe and Huber Publishers, Göttingen.
- Statistics Canada (2005), *Measuring Adult Literacy and Life Skills: New Frameworks for Assessment*, Ottawa.

### Contributor

T. Scott Murray, *Statistics Canada*

# Table of Contents

<b>Introduction</b>	
<b>Foreword</b>	<b>3</b>
<b>Introduction</b>	<b>15</b>
Overview of the study	15
Definitions of skill	15
Measurement of skills	16
Table I.1    Five levels of difficulty for the prose, document and numeracy domains	17
Table I.2    Four levels of difficulty for the problem solving domain	18
Data collection	18
Organization of the report	19
References	20
Note to Readers	21
<hr/>	
<b>Chapter 1</b>	
<b>The Why, What and How of the ALL Survey</b>	<b>23</b>
1.1    Goals of the ALL survey	25
1.2    The conceptual approach to the ALL survey	26
References	28
<hr/>	
<b>Chapter 2</b>	
<b>Comparative Profiles of Adult Skills</b>	<b>29</b>
2.1    Overview and highlights	31
2.2    Comparative distributions of adult skills	32
2.3    Changes in skills profiles from IALS to ALL	39
2.4    Adult skills and age	43
2.5    Adult skills and gender	46
References	48
<b>Annex 2    Data Values for the Figures</b>	<b>49</b>
<hr/>	
<b>Chapter 3</b>	
<b>Education and Skills</b>	<b>57</b>
3.1    Overview and highlights	59
3.2    The relationship between education and cognitive skills	60
3.3    Skills of upper secondary graduates	64
3.4    Skills of post-secondary graduates	66
References	70
<b>Annex 3    Data Values for the Figures</b>	<b>71</b>
<hr/>	
<b>Chapter 4</b>	
<b>Skills and Adult Learning</b>	<b>79</b>
4.1    Overview and highlights	81
4.2    Participation in organised forms of adult education and training	82
4.3    Who is excluded from adult learning opportunities?	84
4.4    Patterns of informal learning	87
4.5    Financial support for adult learning	90
References	95
<b>Annex 4    Data Values for the Figures</b>	<b>97</b>

# Table of Contents

<b>Chapter 5</b>		
<b>Skills and the Labour Force</b>		<b>105</b>
5.1	Overview and highlights	107
5.2	Competitiveness of labour force populations	108
5.3	Employability of working-age populations	112
5.4	Employability of younger and older working-age populations	116
References		119
<b>Annex 5</b>	<b>Data Values for the Figures</b>	<b>121</b>
<b>Chapter 6</b>		
<b>Skills and the Nature of the Workplace</b>		<b>129</b>
6.1	Overview and highlights	131
6.2	Skills in knowledge economies	132
6.3	The relationship between job tasks and skills	137
6.4	Match and mismatch between job tasks and observed skills	143
References		147
<b>Annex 6</b>	<b>Data Values for the Figures</b>	<b>149</b>
<b>Chapter 7</b>		
<b>Skills and Economic Outcomes</b>		<b>163</b>
7.1	Overview and highlights	165
7.2	Earnings returns to skills and education	166
7.3	Skills, social assistance and investment income	171
References		173
<b>Annex 7</b>	<b>Data Values for the Figures</b>	<b>175</b>
<b>Chapter 8</b>		
<b>Skills and Information and Communications Technologies</b>		<b>179</b>
8.1	Overview and highlights	181
8.2	Connectivity and income as a key determinant	182
8.3	ICTs and literacy skills	184
8.4	ICT use and familiarity by key demographic characteristics	187
8.5	ICT use and outcomes	193
References		195
<b>Annex 8</b>	<b>Data Values for the Figures</b>	<b>197</b>
<b>Chapter 9</b>		
<b>Skills and Immigration</b>		<b>203</b>
9.1	Overview and highlights	205
9.2	The significance of immigration in OECD countries	206
9.3	Education credentials and observed skills of immigrants	208
9.4	The relationship between language status and skills	212
9.5	Skills and labour market outcomes of immigrants	213
References		216
<b>Annex 9</b>	<b>Data Values for the Figures</b>	<b>217</b>



# Table of Contents

<b>Chapter 10</b>	
<b>Skills, Parental Education and Literacy Practice in Daily Life</b>	<b>225</b>
10.1 Overview and highlights	227
10.2 The relationship between parents' education and skills of youth	228
10.3 Comparison of socio-economic gradients for three cohorts of adults	234
10.4 Engagement in literacy practices at home and in daily life	237
References	241
<b>Annex 10 Data Values for the Figures</b>	<b>243</b>
<hr/>	
<b>Chapter 11</b>	
<b>Skills and Health</b>	<b>247</b>
11.1 Overview and highlights	249
11.2 Skills and general health status	250
11.3 Skills and work-related health status	256
References	261
<b>Annex 11A Data Values for the Figures</b>	<b>263</b>
<b>Annex 11B General and Work Related Health Questions</b>	<b>267</b>
<hr/>	
<b>Conclusion</b>	
Directions for further work	269
Figure C1 The depth of risk	270
Priorities for further analysis	270
Priorities for future adult skill assessments	271
References	272
<b>Data Values for the Figures</b>	<b>273</b>
Table C1 Number of adults aged 16 to 65 at Levels 1 and 2 in prose literacy, document literacy and numeracy as a per cent of the total population at Level 1 and 2 in any domain by country, 2003	273
<hr/>	
<b>Annex A</b>	
<b>A Construct-Centered approach to Understanding What was Measured in the Adult Literacy and Life Skills (ALL) Survey</b>	<b>275</b>
Overview	277
Introduction	277
Scaling the literacy, numeracy and problem solving tasks in ALL	278
Measuring prose and document literacy in ALL	280
Defining prose and document literacy	280
Measuring numeracy in ALL	291
Defining numeracy in ALL	291
Measuring problem solving in ALL	302
Defining problem solving in ALL	302
Conclusion	309
References	311
<hr/>	
<b>Annex B</b>	
<b>Adult Literacy and Life Skills Survey Survey Methodology</b>	<b>313</b>
Survey methodology	315
Assessment design	315
Target population and sample frame	316
Sample design	317

# Table of Contents

Sample size	320
Data collection	321
Scoring of tasks	324
Survey response and weighting	326
<b>Annex C</b>	
<b>Principal Participants in the Project</b>	<b>329</b>
<b>List of Figures</b>	
<b>Chapter 2</b>	
Figure 2.1 Multiple comparisons of skills proficiencies	34
Figure 2.2 Comparative distributions of skills scores	36
Figure 2.3 Comparative distributions of skills levels	37
Figure 2.4 Changes in distributions of skills scores	40
Figure 2.5 Changes in mean scores from IALS to ALL	41
Figure 2.6 Changes in distributions of skills levels	42
Figure 2.7 Age and adult skills	44
Figure 2.8 Skills-age profiles controlling for educational attainment	45
Figure 2.9 Gender differences in skills	47
<b>Chapter 3</b>	
Figure 3.1 Educational attainment and skills proficiencies	62
Figure 3.2 Age, educational attainment and skills proficiencies	63
Figure 3.3 Likelihood of scoring at low skill levels by upper secondary education status	65
Figure 3.4 Skills of post-secondary graduates	68
<b>Chapter 4</b>	
Figure 4.1 Adult education and training participation rates	83
Figure 4.2 Changes in adult education and training participation rates	83
Figure 4.3 Literacy and adult education participation	85
Figure 4.4 Likelihood of participation by literacy levels	86
Figure 4.5 Changes in participation rates by literacy levels	86
Figure 4.6 Engagement in informal learning	88
Figure 4.7 Informal learning by level of education	89
Figure 4.8 Likelihood of participation in active modes of informal learning by literacy levels	89
Figure 4.9 Sources of financial support for adult education and training	91
Figure 4.10 Sources of financing by document literacy levels	92
Figure 4.11 Employer sponsored training by level of practice engagement	93
<b>Chapter 5</b>	
Figure 5.1 Skills among labour force populations in the top 25 per cent	109
Figure 5.2 Skills among labour force populations in the bottom 25 per cent	111
Figure 5.3 Likelihood of labour force inactivity by skills levels	113
Figure 5.4 Likelihood of experiencing unemployment by skills levels	114
Figure 5.5 Probability of exiting unemployment by skills levels	115
Figure 5.6 Probability of younger workers exiting unemployment by skills levels	116
Figure 5.7 Probability of older workers exiting unemployment by skills levels	117

# Table of Contents

## Chapter 6

Figure 6.1	Knowledge- and technology-based industry classification by skills	134
Figure 6.2	Knowledge-based occupational classification by skills	136
Figure 6.3	Practice engagement at work by skills levels	139
Figure 6.4	Practice engagement at work and skills, controlling for education	140
Figure 6.5	Practice engagement at work by occupational types	142
Figure 6.6	“Match” and “mismatch” between individual skills and practice engagement in the workplace	145

## Chapter 7

Figure 7.1	Returns to skills and education	168
Figure 7.2	Earnings premiums associated with occupational types	170
Figure 7.3	Likelihood of low-skilled adults collecting social assistance payments	171
Figure 7.4	Likelihood of medium to high-skilled adults earning investment income	172

## Chapter 8

Figure 8.1	Home computer and internet access at home	183
Figure 8.2	Home computer access by income quartiles	184
Figure 8.3	Skills of computer users and non-users	185
Figure 8.4	Index scores of ICT use and familiarity	185
Figure 8.5	Use of computers for task-oriented purposes by literacy skills	186
Figure 8.6	Use of computers for task-oriented purposes by age groups	188
Figure 8.7	Use of computers for task-oriented purposes by gender	189
Figure 8.8	Use of computers for task-oriented purposes by educational attainment	190
Figure 8.9	Use of computers for task-oriented purposes by type of occupation	191
Figure 8.10	Likelihood of being a high-intensity computer user by literacy skill levels	192
Figure 8.11	Combined literacy and computer use profiles	194
Figure 8.12	Likelihood of being a top income quartile earner by combined skill and user profiles	194

## Chapter 9

Figure 9.1	Natural population growth in OECD countries	207
Figure 9.2	Per cent of foreign-born in population and in labour force for OECD countries participating in ALL, 2001	208
Figure 9.3	Recent versus established immigrant status by educational attainment	209
Figure 9.4	Recent versus established immigrant status by skill level	210
Figure 9.5	Native versus foreign language status of immigrants by skill level	213
Figure 9.6	Likelihood of being unemployed among native-born and foreign-born by skill level	214
Figure 9.7	Likelihood of earning low income among native-born and foreign-born by skill level	215

## Chapter 10

Figure 10.1	Socio-economic gradients of youth	230
Figure 10.2	Changes in socio-economic gradients of youth from IALS to ALL	233
Figure 10.3	Socio-economic gradients for three cohorts of adults	235
Figure 10.4	Literacy skills and literacy practices at home and in daily life	239

## Table of Contents

### Chapter 11

Figure 11.1	Classification of general health status	252
Figure 11.2	General health status by country	254
Figure 11.3	Skills and general health status by key demographic variables	255
Figure 11.4	Classification of work-related health status	257
Figure 11.5	Work-related health status by country	259
Figure 11.6	Skills and work-related health status by key demographic variables	260

### List of Tables

#### Chapter 2

Table 2.1	Comparisons of countries based on average scores, populations aged 16 to 65, 2003	34
Table 2.2	Mean scores with .95 confidence interval and scores at the 5th, 25th, 75th and 95th percentiles on skills scales ranging from 0 to 500 points, populations aged 16 to 65, 2003	49
Table 2.3	Per cent of populations aged 16 to 65 at each skills level, 2003	50
Table 2.4	Mean scores with .95 confidence interval and scores at the 5th, 25th, 75th and 95th percentiles on skills scales ranging from 0 to 500 points, populations aged 16 to 65, IALS 1994/1998 and ALL 2003	51
Table 2.5	Summary of changes in mean scores from IALS to ALL, by statistical significance at the five per cent level, populations aged 16 to 65, IALS 1994/1998 and ALL 2003	41
Table 2.6	Differences between IALS 1994/1998 and ALL 2003 in the per cent of adults aged 16 to 65 at each skills level	52
Table 2.7A	Mean scores with .95 confidence interval and scores at the 5th, 25th, 75th, and 95th percentiles on the document scale, population aged 16 to 25, 26 to 45 and 46 to 65, 2003	52
Table 2.7B	Per cent of populations aged 16 to 25, 26 to 45 and 46 to 65 at each level on the document scale, 2003	53
Table 2.8	Relationship between age and literacy scores on the document literacy scale, with adjustment for level education and language status, populations aged 16 to 65, 2003	53
Table 2.9	Mean skills proficiencies between men and women on the prose, document, numeracy and problem solving scales, 2003	55

#### Chapter 3

Table 3.1A	Mean numeracy scores on a scale with range 0 to 500 points, by level of educational attainment, populations aged 16 to 65, 2003	71
Table 3.1B	Mean problem solving scores on a scale with range 0 to 500 points, by level of educational attainment, populations aged 16 to 65, 2003	72
Table 3.2A	Mean combined prose and document scores on a scale with range 0 to 500 points, by level of educational attainment, populations aged 26 to 35, 2003	73
Table 3.2B	Mean combined prose and document scores on a scale with range 0 to 500 points, by level of educational attainment, populations aged 56 to 65, 2003	74
Table 3.3A	Odds of scoring at Levels 1 or 2 on the problem solving scale by upper secondary education status, adjusted for age and native language status, persons aged 16 to 30, 2003	75
Table 3.3B	Odds of scoring at Levels 1 or 2 on the numeracy scale by upper secondary education status, adjusted for age and native language status, persons aged 16 to 30, 2003	75
Table 3.4	ALL skills-education profiles for persons aged 16 to 35 who have completed at least upper secondary education, adjusted for age and native language status, problem solving scale (United States on combined prose and document scale), 2003	76

# Table of Contents

## Chapter 4

Table 4.1	Per cent of populations aged 16 to 65 receiving adult education and training during the year preceding the interview, by type of participation, 2003	97
Table 4.2	Per cent of populations aged 16 to 65 receiving adult education and training during the year preceding the interview, IALS 1994/1998 and ALL 2003	97
Table 4.3	Per cent of populations aged 16 to 65 receiving adult education and training during the year preceding the interview, by document literacy levels, 2003	98
Table 4.4	Adjusted odds ratios showing the likelihood of adults aged 16 to 65 receiving adult education and training during the year preceding the interview, by document literacy levels, 2003	98
Table 4.5	Changes in the per cent of adults aged 16 to 65 in adult education and training between IALS 1994/1998 and ALL 2003, by document literacy levels	99
Table 4.6	Per cent of populations aged 16 to 65 participating in informal learning activities during the year preceding the interview, by mode of engagement, 2003	99
Table 4.7	Per cent of populations aged 16 to 65 participating in active modes of informal learning in the year preceding the interview, by education attainment, 2003	100
Table 4.8	Adjusted odds ratios showing the likelihood of adults aged 16 to 65 participating in active modes of informal adult learning during the year preceding the interview, by document literacy levels, 2003	101
Table 4.9	Per cent of men and women participating in adult education and training who receive financial support from various sources, populations aged 16 to 65, 2003	101
Table 4.10	Per cent of participants in adult education and training who received financial support from various sources, by document literacy, populations aged 16 to 65 who worked in the last 12 months, 2003	102
Table 4.11	Adjusted odds ratios showing the likelihood of receiving employer sponsored adult education and training during the year preceding the interview, by combined levels of engagement in reading, writing and numeracy practices at work, populations aged 16 to 65, 2003	103

## Chapter 5

Table 5.1	Score of the 75th percentile on a scale with range 0 to 500 points, labour force populations aged 16 to 25, 26 to 45 and 46 to 65, 2003	121
Table 5.2	Score of the 25th percentile on a scale with range 0 to 500 points, labour force populations aged 16 to 25, 26 to 45 and 46 to 65, 2003	123
Table 5.3	Odds ratios showing the likelihood of experiencing labour force inactivity for 6 months or more in the last 12 months compared to being employed all year, by numeracy levels, populations aged 16 to 65, excluding students and retirees, 2003	124
Table 5.4	Odds ratios showing the likelihood of experiencing unemployment for 6 months or more in the last 12 months compared to being employed all year, by numeracy levels, labour force populations aged 16 to 65, 2003	125
Table 5.5	The probabilities of unemployed adults aged 16 to 65 to exit unemployment over a 52 week period, by low (Levels 1 and 2) and medium to high (Levels 3 and 4/5) skills, document scale, 2003	125
Table 5.6	The probabilities of unemployed adults aged 16 to 30 to exit unemployment over a 52 week period, by low (Levels 1 and 2) and medium to high (Levels 3 and 4/5) skills, document scale, 2003	126
Table 5.7	The probabilities of unemployed adults aged 50 to 65 to exit unemployment over a 52 week period, by low (Levels 1 and 2) and medium to high (Levels 3 and 4/5) skills, document scale, 2003	127

**Chapter 6**

Table 6.1	Per cent of labour force populations aged 16 to 65 at document literacy Levels 3 and 4/5, by type of industry, 2003	149
Table 6.2	Per cent of labour force populations aged 16 to 65 at skills Levels 3 and 4/5, by type of occupation, 2003	151
Table 6.3	Index scores of reading, writing and numeracy engagement at work on a standardized scale (centred on 2), by skills levels, labour force populations aged 16 to 65, 2003	154
Table 6.4	Relationship between combined index scores of reading, writing and numeracy engagement at work on a standardized scale (centred on 2) and skills scores on scales 0 to 500 points, adjusted for years of schooling and native language status, labour force populations aged 16 to 65, 2003	155
Table 6.5	Index scores of reading, writing and numeracy engagement at work on a standardized scale (centred on 2) by aggregated occupational types, labour force populations aged 16 to 65, 2003	159
Table 6.6	Per cent of labour force populations aged 16 to 65 whose skills match or mismatch their level of practice engagement at work, 2003	162

**Chapter 7**

Table 7.1	Three stage least squares estimates of the effect of observed skills (percentile scale) on weekly log-earnings, prose, document, numeracy and problem solving scales, labour force populations aged 16 to 65, 2003	175
Table 7.2	Per cent difference of expected weekly earnings for each occupational type relative to “goods related” occupations, labour force populations aged 16 to 65, 2003	177
Table 7.3	Adjusted and unadjusted odds ratios showing the likelihood of low skilled adults (Levels 1 and 2) collecting social assistance payments, numeracy scale, populations aged 16 to 65, 2003	178
Table 7.4	Adjusted and unadjusted odds ratios showing the likelihood of medium to high skilled adults (Levels 3 and 4/5) earning investment income, numeracy scale, populations aged 16 to 65, 2003	178

**Chapter 8**

Table 8.1	Per cent of adults aged 16 to 65 who report having access to a computer and the Internet at home, 2003	197
Table 8.2	Per cent of adults aged 16 to 65 who report having access to a computer at home, by household income quartiles, 2003	197
Table 8.3	Mean scores on the prose literacy scale ranging from 0 to 500 points, by whether respondents are computer users or non-users, populations aged 16 to 65, 2003	198
Table 8.4	Mean index scores on three scales of ICT use and familiarity, perceived usefulness and attitude toward computers, diversity and intensity of Internet use, and use of computers for specific task-oriented purposes, populations aged 16 to 65, 2003	198
Table 8.5	Mean index scores on a scale measuring the intensity of use of computers for specific task-oriented purposes, by prose literacy levels, populations aged 16 to 65, 2003	198
Table 8.6	Mean index scores on a scale measuring the intensity of use of computers for specific task-oriented purposes, by age groups, populations aged 16 to 65, 2003	199
Table 8.7	Mean index scores on a scale measuring the intensity of use of computers for specific task-oriented purposes, by gender, populations aged 16 to 65, 2003	199
Table 8.8	Mean index scores on a scale measuring the intensity of use of computers for specific task-oriented purposes, by educational attainment, populations aged 16 to 65, 2003	199
Table 8.9	Mean index scores on a scale measuring the intensity of use of computers for specific task-oriented purposes, by type of occupations, populations aged 16 to 65, 2003	200

## Table of Contents

Table 8.10	Adjusted odds ratio showing the likelihood of adults aged 16 to 65 of being high-intensity computer users, by prose literacy levels, 2003	200
Table 8.11	Per cent of adults aged 16 to 65 in each combined literacy and computer use profile, 2003	200
Table 8.12	Adjusted odds ratio showing the likelihood of adults aged 16 to 65 of being a top income quartile earning, by combined literacy and computer user profiles, 2003	201

### Chapter 9

Table 9.1	The number of births minus number of deaths from 1950 to 1999 and projections to 2050	217
Table 9.2	Per cent of foreign-born in population and in labour force for OECD countries participating in ALL, 2001	208
Table 9.3	Per cent of populations aged 16 to 65 at each level of educational attainment, by recent vs established immigration status, 2003	218
Table 9.4	Per cent of populations aged 16 to 65 at each skill level, by recent vs established immigrant status, 2003	219
Table 9.5	Per cent of adults aged 16 to 65 at each literacy level on the prose scale, by whether their native tongue is same or different from the official language(s) of host country, 2003	223
Table 9.6	Adjusted odds ratios indicating the likelihood of low skilled (Levels 1 and 2) and medium to high skilled (Levels 3 and 4/5) foreign-born and native-born populations aged 16 to 65 of being unemployed, prose literacy scale, 2003	224
Table 9.7	Adjusted odds ratios indicating the likelihood of low skilled (Levels 1 and 2) and medium to high skilled (Levels 3 and 4/5) foreign-born and native-born populations aged 16 to 65 of being in the lowest personal earnings income quartile, prose literacy scale, 2003	224

### Chapter 10

Table 10.1	Relationship between respondent's prose literacy scores and parents' education in years, populations aged 16 to 25, 2003	243
Table 10.2	Relationship between respondent's prose literacy scores and parents' education in years, populations aged 16 to 25, IALS 1994/1998	244
Table 10.3	Relationship between respondent's prose literacy scores and parents' education in years, populations aged 16 to 25, 26 to 45 and 46 to 65, 2003	244
Table 10.4	Relationship between prose literacy scores and engagement in literacy practices at home and in daily life, adjusted for respondent's and parents' education, populations aged 16 to 25, 26 to 45 and 46 to 65, 2003	245

### Chapter 11

Table 11.1	Response profiles in the four latent classes based on general health status, populations aged 16 to 65, 2003	263
Table 11.2	Per cent of adults in each of four general health status groups by country, populations aged 16 to 65, 2003	263
Table 11.3	Mean scores on the prose, document and numeracy scales ranging from 0 to 500 points by key demographic variables, populations aged 16 to 65, 2003	264
Table 11.4	Response profiles in the four latent classes based on work-related health status, populations aged 16 to 65, 2003	265
Table 11.5	Per cent of adults in each of four work-related health status groups by country, populations aged 16 to 65, 2003	265
Table 11.6	Mean scores on the prose, document and numeracy scales ranging from 0 to 500 points by key demographic variables, populations aged 16 to 65, 2003	266

## Table of Contents

---

### Annex A

Table A1	Problem-solving steps and instantiations	305
----------	--	-----

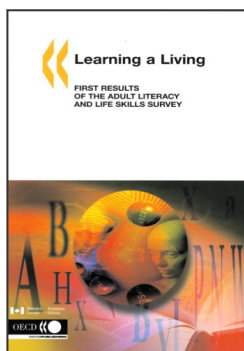
---

### Annex B

Table B1	Sample frame and target population exclusions	317
Table B2	Sample size by assessment language	321
Table B3	Survey collection period	322
Table B4	Interviewer information	323
Table B5	Scoring – percent reliability by domain	325
Table B6	Scoring operations summary	325
Table B7	Benchmark variables by country	327
Table B8	Sample size and response rate summary	327

---





**From:**  
**Learning a Living**  
First Results of the Adult Literacy and Life Skills Survey

**Access the complete publication at:**  
<https://doi.org/10.1787/9789264010390-en>

**Please cite this chapter as:**

OECD/Statistics Canada (2005), “The Why, What and How of the ALL Survey”, in *Learning a Living: First Results of the Adult Literacy and Life Skills Survey*, OECD Publishing, Paris.

DOI: <https://doi.org/10.1787/9789264010390-3-en>

This work is published under the responsibility of the Secretary-General of the OECD. The opinions expressed and arguments employed herein do not necessarily reflect the official views of OECD member countries.

This document and any map included herein are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.

You can copy, download or print OECD content for your own use, and you can include excerpts from OECD publications, databases and multimedia products in your own documents, presentations, blogs, websites and teaching materials, provided that suitable acknowledgment of OECD as source and copyright owner is given. All requests for public or commercial use and translation rights should be submitted to [rights@oecd.org](mailto:rights@oecd.org). Requests for permission to photocopy portions of this material for public or commercial use shall be addressed directly to the Copyright Clearance Center (CCC) at [info@copyright.com](mailto:info@copyright.com) or the Centre français d'exploitation du droit de copie (CFC) at [contact@cfcopies.com](mailto:contact@cfcopies.com).