



INSTITUT C.D. HOWE INSTITUTE

COMMENTARY

NO. 486

The Power of Words: Improving Immigrants' Literacy Skills

The literacy gap between immigrants and non-immigrants is larger in Canada than in Australia, despite the fact that immigrants in both countries are mostly selected from well-educated candidates. What can we learn from Australia's policy success?

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COMMENTARY No. 486
August 2017
DEMOGRAPHICS AND
IMMIGRATION; EDUCATION,
SKILLS AND LABOUR
MARKET

\$12.00

ISBN 978-1-987983-39-5

ISSN 0824-8001 (print);

ISSN 1703-0765 (online)



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THE STUDY IN BRIEF

Immigrants' employability and earnings capacity are positively associated with literacy skills. Those highly fluent in English or French are far more likely to find well-paid jobs after arrival in Canada. Higher literacy levels significantly improve employment earnings by facilitating the application of skills, while accelerating immigrants' labour market integration and enhancing productivity.

The measurement of adult literacy skills in the 2012 OECD Programme for International Assessment of Adult Competencies (PIAAC), however, shows the literacy gap between immigrants and non-immigrants is larger in Canada than in Australia, despite the fact that immigrants in both countries are mostly selected from well-educated candidates. The skills gap between immigrants and non-immigrants exists across all levels of education, including university-educated immigrants, even though higher education should translate into higher skills.

This *Commentary* highlights the role of language and related immigration policies that can contribute to a higher literacy test score for new arrivals to Canada, drawing especially from the Australian experience. Australia's introduction of language testing in 1999 is a major cause of improvements in the average performance of immigrants in the 2012 PIAAC. Canada's language-proficiency requirement, despite a refocus in 2010, is not as strict as Australia's.

Given the growing importance of immigration as a source of growth for Canada's labour force, there is a need to improve Canada's selection policies, either by giving more weight to language proficiency or by making language testing more rigorous, or a combination thereof. Canada can also benefit from granting permanent residency to more former international students who studied in Canada. As a final point, federal and provincial governments need to make sure new arrivals who have limited language proficiency – especially those admitted under immigration programs other than the skilled-worker streams – receive rigorous language training.

C.D. Howe Institute Commentary© is a periodic analysis of, and commentary on, current public policy issues. Michael Benedict and James Fleming edited the manuscript; Yang Zhao prepared it for publication. As with all Institute publications, the views expressed here are those of the author and do not necessarily reflect the opinions of the Institute's members or Board of Directors. Quotation with appropriate credit is permissible.

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Foundational life skills, particularly literacy, largely determine individuals' employment and wage levels. This is especially true for immigrants, whether in Canada or elsewhere (Green and Riddell 2003; Blau and Kahn 2005; Ferrer, Green and Riddell, 2006; Barrett 2012).

Higher literacy levels significantly improve employment and earnings outcomes by facilitating the application of skills, enhancing productivity and, in general, accelerating immigrants' labour-market integration (Clark and Skuterud 2016).¹ Immigrants with higher literacy skill levels can also contribute to better economic outcomes for all residents.²

However, the latest available measurement of adult cognitive skills levels, the 2012 OECD Programme for International Assessment of Adult Competencies (PIAAC), shows that immigrants in Canada achieved lower test scores in literacy skills³ relative to non-immigrants. The skills gap between immigrants and non-immigrants exists across all levels of education, including university-educated immigrants, even though higher education should translate into higher skills.

But why do immigrants in Canada have such a relatively poor performance in literacy skills – a major determinant of their labour market success? This *Commentary* highlights the role of

language and related immigration policies that can contribute to better PIAAC scores for new arrivals to Canada, drawing especially from the Australian experience. Since the PIAAC survey includes comparable skill measures, a cross-country comparison can provide further insight into assessing Canadian immigration policies.

Canada uses a points system to screen potential immigrants, which enhances the likelihood of good labour market prospects for new arrivals. Despite the system's emphasis on education, however, the poor performance of even university-level educated immigrants in the PIAAC indicates that there is a disconnect between how foreign education transfers to the Canadian context. In other words, education is an insufficient indicator of immigrants' ability to successfully transfer their skills into the Canadian labour market.

Previous studies have highlighted the importance of immigrants' official language proficiency on labour market outcomes (Ferrer, Green and Riddell 2006; Bleakley and Chin 2004). PIAAC results

The author thanks Colin Busby, Steve Ambler, Serge Buy, Umit Kiziltan, Angelo Melino, Tammy Schirle, Heather Stockton, Arthur Sweetman, members of the Human Capital Policy Council, and anonymous reviewers for comments on an earlier draft. The author retains responsibility for any errors and for the views expressed.

- 1 Full integration occurs when there are no labour market disparities between immigrants and non-immigrants in terms of employment and earnings.
- 2 For more information, see Boeri and Brucker (2005) and Ruhs (2008).
- 3 In the PIAAC, literacy skills are assessed on reading comprehension, including word meaning, sentence processing and passage understanding in the official language(s) of a country, which are English and French in Canada. For each participant, a set of 10 imputed proficiency scores (plausible values) ranges from zero to 500.

show that language proficiency is also central to demonstrating literacy, which allows immigrants to effectively translate their skills into the labour force – that is, it prevents under-utilization of immigrant skills. However, not all immigrant-receiving countries with similarly high proportions of skilled immigrants experience similar outcomes: Australia, for example, has a comparable immigration system to Canada yet its immigrants outperform Canadian immigrants in literacy scores.

Australia's introduction in 1999 of language testing for prospective immigrants is a major cause of improvements in the average performance of its immigrants in the 2012 PIAAC. Although Canada also announced policy reforms to its immigration system around 2010, its language-proficiency requirement is not as strict as Australia's. Given the growing importance of immigration as a source of growth for Canada's labour force, there is a need to improve Canada's selection policies, either by giving more weight to language proficiency or by making language testing more rigorous, or a combination thereof.

Furthermore, Canada can benefit from granting permanent residency to more former international students who obtained Canadian credentials. As a final point, federal and provincial governments need to make sure new arrivals, especially under immigration programs other than the skilled-worker streams, who have limited language proficiency, receive rigorous language training.

PIAAC Results

In the 2012 PIAAC, Canada received a literacy score near the OECD average. However, Canadian immigrants' score of 256 in literacy skills was substantially lower than non-immigrants' performance (Table 1). Both Australian immigrants and non-immigrants, in contrast, perform much better than their Canadian counterparts on these scores even though it has a similarly high proportion of immigrants in the labour market (Parkin 2015).

In countries such as Canada, where immigrants are selected according to a points system (including education), significant skills gaps between immigrants and non-immigrants suggest potential issues in the selection process. It is important to first find out which factors drive these gaps before assessing whether Australia's stronger focus on language skills should be considered as a way to reduce the gaps.

What Explains the Skills Gaps?

The literacy-skills gap between immigrants and non-immigrants in Canada is twice as large as that in Australia (Table 2). However, immigrants' language background, education and a number of other socioeconomic characteristics that impact literacy skills vary from one host country to another due to differences in immigration policies. I seek to understand how these characteristics explain the different literacy scores that we see in Canada and Australia through an econometric exercise, whose results are depicted in Table 2.

For example, immigrants without English or French as a mother tongue in the case of Canada, or English in Australia, would naturally be expected to perform lower on literacy exams than those who have a greater background in a receiving country's official language. Because the test is administered in the official language(s) of the host country, literacy results capture language abilities. When I screen for differences in language background, the literacy-score gap shrinks in Canada, whereas in Australia the gap disappears entirely (Table 2). This shows that immigrants in Canada, without a strong background in English or French, have much lower literacy scores than non-immigrants who have a similar language background, such as among Canadian-born individuals with a foreign-language mother tongue. The same is not true in Australia, where immigrants with similar language backgrounds to non-immigrants – those with a non-English mother tongue – perform equally well on literacy tests.

Table 1: PIAAC Results by Immigration Status

Jurisdiction	Proportion of Immigrants in the PIAAC Sample (Percent)	Literacy Score (Average)	Literacy Score, Non-immigrants (Average)	Literacy Score, Immigrants (Average)
Canada	26	273	280	256
Australia	28	280	284	271
OECD Average	12	273	276	247

Source: Table 3 in Parkin (2015).

Table 2: The Regression Outcomes for Literacy Skills

Country	Skills Gap between Immigrants and Non-Immigrants			
	No Control	Control For (screening out the effect of)		
		Language	Education	All Other Characteristics
Canada	-24	-19	-32	-26
Australia	-12	2	-21	-6

Note: “Whether test language was the same as native language” is used as a control variable for language. Other characteristics include parental education, age, and gender. Bold number indicates that the estimated parameter is statistically significant at 5% level. Australia’s sample is restricted to individuals aged 16 to 65 to be equivalent with the one for Canada.

Source: Author’s estimates using the 2012 PIAAC data for Canada and Australia.

Educational attainment also plays an important role in literacy-test results. Controlling for only education significantly increases the skills gap between immigrants and non-immigrants in both Canada and Australia (Table 2).⁴ This is because there is a greater proportion of immigrants in both countries, relative to non-immigrants, who

have university degrees – conversely, a greater proportion of non-immigrants have only a high-school education or less, relative to immigrants. In the Canadian PIAAC sample, about 39 percent of immigrants have at least a university degree compared to only 22 percent of non-immigrants. In Australia, these percentages are 36 for immigrants

⁴ The regression results are very similar to the last column when only education and language are simultaneously controlled.

and 19 for non-immigrants. Characteristics such as age and parental education⁵ also play important, but lesser, roles in literacy outcomes, as the gap between immigrants and non-immigrants is mainly associated with differences in education and language background.⁶

The Role of Immigrant-Selection Programs

The distribution of immigrants that arrive in Australia and Canada differs due to the type and preferences of immigration programs. In the PIAAC study, some 45 percent of Canadian immigrants entered the country as part of the economic class program and through the points system. The share of immigrants in family class, refugee and other programs are correspondingly 34 percent, 8 percent and 13 percent. Due to differences in the admission process under these programs, it is not surprising to witness notable variations in literacy gaps between immigrants and non-immigrants by type of program (Figure 1). In particular, immigrants from the point system and the “other” category experience the lowest literacy-skills gaps relative to non-immigrants. The gap is much higher for refugees and family-class immigrants where language and education are not selection factors for immigration.

Although information about which program Australian immigrants were admitted under was not available in the PIAAC scores, we can glean some important information about national results when comparing government administrative data in Australia and Canada. In Australia, immigrants are admitted under four major programs: economic (or skill stream), family, refugee, and other (special eligibility).

In both countries, the largest share of immigrants comes under economic programs (Table 3). However, Canada admits a slightly higher share of immigrants as refugees, who tend to struggle the most with literacy. In 2012, Canada welcomed 9 percent of total immigrants via the refugee program, while fewer refugees were admitted to Australia. The different distribution of immigrants between Canada and Australia helps explain some of the immigrant and non-immigrant skills gap in each country.

Effectiveness of a Focus on Higher Education

Higher levels of education should translate into greater skills, which increase productivity and labour-force participation. Not surprisingly, educational attainment is an important determinant in Canadian immigrant selection. Candidates with higher levels of education receive more points in the immigration process and have a greater chance to be selected.

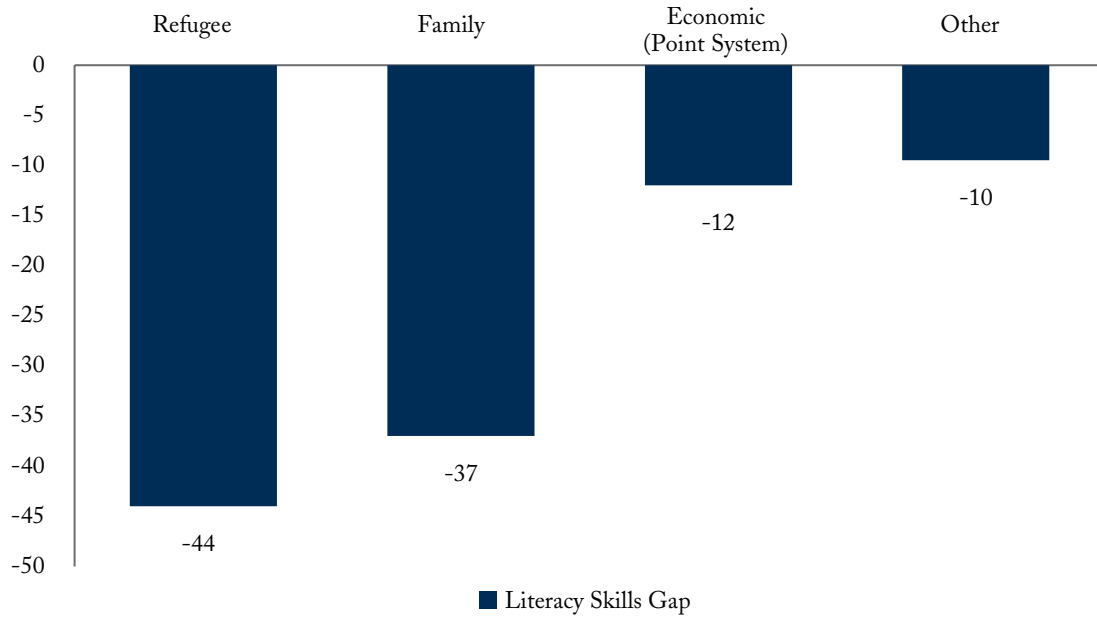
However, the results of literacy scores clearly suggest that educational achievement alone is not a sufficient predictor in assessing the success of an immigration system in selecting people with high literacy levels. There is a persistent literacy-skills gap between immigrants and non-immigrants with the same level of education (Figure 2). Immigrants, on average, obtained a lower score in literacy skills relative to non-immigrants at any level of education. University-educated immigrants, on average, scored 34 points fewer in literacy relative to university-educated non-immigrants. Strikingly, university-educated immigrants have similar literacy skills as high-school educated non-immigrants.

Although immigrants with higher levels of education obtained a better score in literacy skills than less-educated immigrants, the literacy gaps

5 The literature makes clear that parental education plays an important role in children’s educational outcomes. As such, literacy skills are strongly determined by parental education (e.g., Green and Riddell 2003).

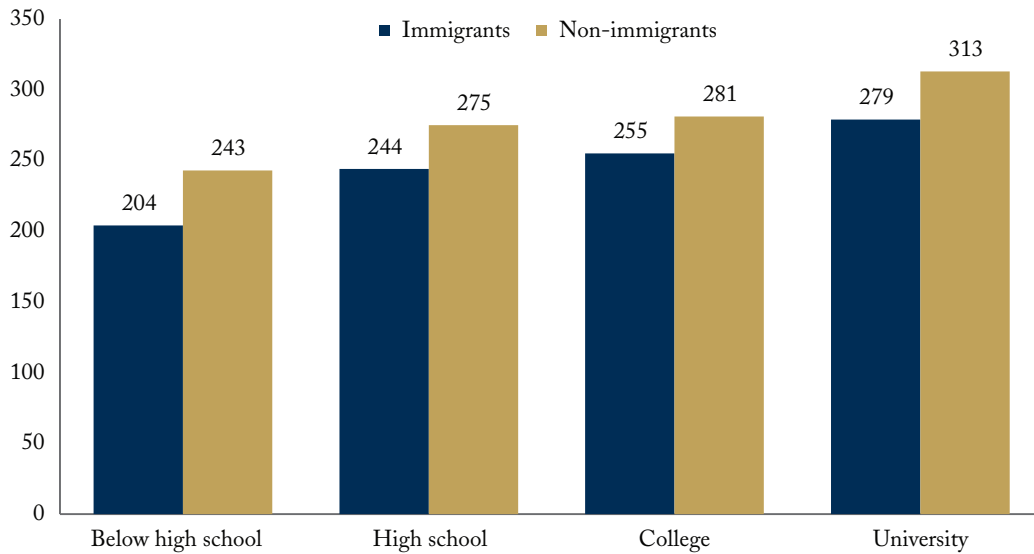
6 Details of the model identification are provided in the Appendix.

Figure 1: Literacy-skills Gap between Canadian Immigrants and Non-immigrants by Program



Source: 2012 PIAAC.

Figure 2: Literacy Results for Canadian Immigrants and Non-immigrants by Education



Source: 2012 PIAAC.

between highly educated immigrants and non-immigrants raises an important question about the immigration system's effectiveness when assessing highly educated immigrants.

Meanwhile, language barriers seem to be a significant factor in the skill gaps between immigrants and non-immigrants. Better language abilities in Canada's official languages result in higher literacy results among immigrants, allowing them to do better in the labour market.

In the PIAAC results, there are also notable variations in the literacy outcomes of university-educated Canadian immigrants by country from where their highest degree is obtained.⁷ However, immigrants who obtained their highest level of education in Canada performed better than those who received degrees in all other regions, regardless of their language background.⁸

Immigration Policies and Outcomes

Canada and Australia follow common strategies for selecting immigrants. Both place a great emphasis on economic migration, and both value diversification among source countries and talents. Each has a two-step process that helps speed up immigrant integration through retaining temporary foreign workers and former international students. However, in 2012, Australian immigrants, on average, outperformed Canadian immigrants by 15 points in literacy. Given the general similarities in the two immigration systems, the main question is why the outcomes are different and which policies might be more effective in improving the literacy skills of Canadian immigrants.

Although both Canada and Australia use a sophisticated points-based system to improve

Table 3: Distribution of Immigrants by Program for Canada and Australia in 2012

	Canada	Australia
	(Percent)	
Migration Program:		
Economic	62	63
Family Reunification	27	30
Refugee	9	7
Other	2	
Source: For Canada, Immigration, Refugees and Citizenship Canada.		
For Australia, Department of Immigration and Border Protection.		

immigrants' labour market outcomes, considerable divergences exist. For example, Australia implemented substantial reforms to its skilled-immigration system in 1999 including an English-language test for all occupations, assessment of foreign qualifications, filtering occupations based on labour market needs and excluding candidates aged above 45. Several studies confirm that these rigorous pre-screenings, particularly language testing, have had positive impacts on immigrants' employment outcomes. In particular, Cobb-Clark (2003) shows that labour-force participation of Australian immigrants largely improved six months after these reforms by comparing data of immigrants who arrived before and after the policies' implementation. At the same time, in contrast, Canada had not imposed mandatory language ability assessment. In an international comparison, Hawthorne (2008) found that, relative

7 Countries and regions where the highest degrees are obtained are Canada, Arab States and Sub-Saharan African, Latin America, Asia and the Pacific, Central and Eastern Europe and North America and Western Europe.

8 In a separate study, Li (2017) shows that quality of immigrants' source-country education is linked to their earnings when they obtained no education in Canada.

to Canada, new immigrants in Australia are not only employed more quickly after their arrival, but are also able to find jobs more related to their skills and educational qualifications.

Given these differences, it is not surprising that Australian immigrants' literacy scores were higher than those of Canadian foreign-born participants in the 2012 PIAAC. Nonetheless, Clarke and Skuterud (2013), using census data between 1986 and 2006, show that neither rigorous pre-screening nor general economic conditions led to better employment and earnings of Australian immigrants relative to Canadian immigrants. They argue, instead, that Australian immigration-policy decisions in the late 1990s shifted the source country distribution of immigrants toward English-speaking countries, while the Canadian points-based immigration system did not. Using data from the 2003/2006 international Adult Literacy and Life Skills surveys (ALLS), Clarke and Skuterud (2016) show that the late 1990s reforms to Australian immigration system led to better literacy scores among more recent immigrants in Australia compared to Canada, although immigrants whose mother tongue is a foreign language perform similarly on literacy scores in Australia and in Canada.

The 2012 PIAAC data strongly suggest that Australia's immigration reforms, in fact, have had positive impacts on the skill levels of foreign-language immigrants, relative to Canada's. By dividing foreign-language immigrants based on years in country, Figure 3 shows that 43 percent of those⁹ who arrived in Australia between 2002 and 2012 had literacy proficiency results of at least Level 3.¹⁰ This 10-year-period includes only immigrants

who arrived in Australia after language testing. In contrast, during the same period, only 34 percent of Canadian foreign-language immigrants had Level 3 literacy skills or above.

The average literacy test score of more recent foreign-language immigrants also differs considerably between Canada and Australia. Australian immigrants who arrived less than 10 years before the time of survey had higher literacy skills among immigrants whose first language is foreign, while foreign-language immigrants who arrived earlier had equivalent literacy skills in Canada and Australia.

Therefore, when Canada and Australia had comparable policies before 1999, their immigrants had identical literacy outcomes. More than a decade later, Canada moved to require the assessment of foreign educational credentials¹¹ to determine the Canadian equivalency of international credentials. Canada also introduced a mandatory language proficiency test in 2010 that should result in immigrants coming to Canada who are more literate in English or French.

I now turn to the question of whether the new Canadian policies are likely to be as effective as they have been in Australia.

Language-Proficiency Testing

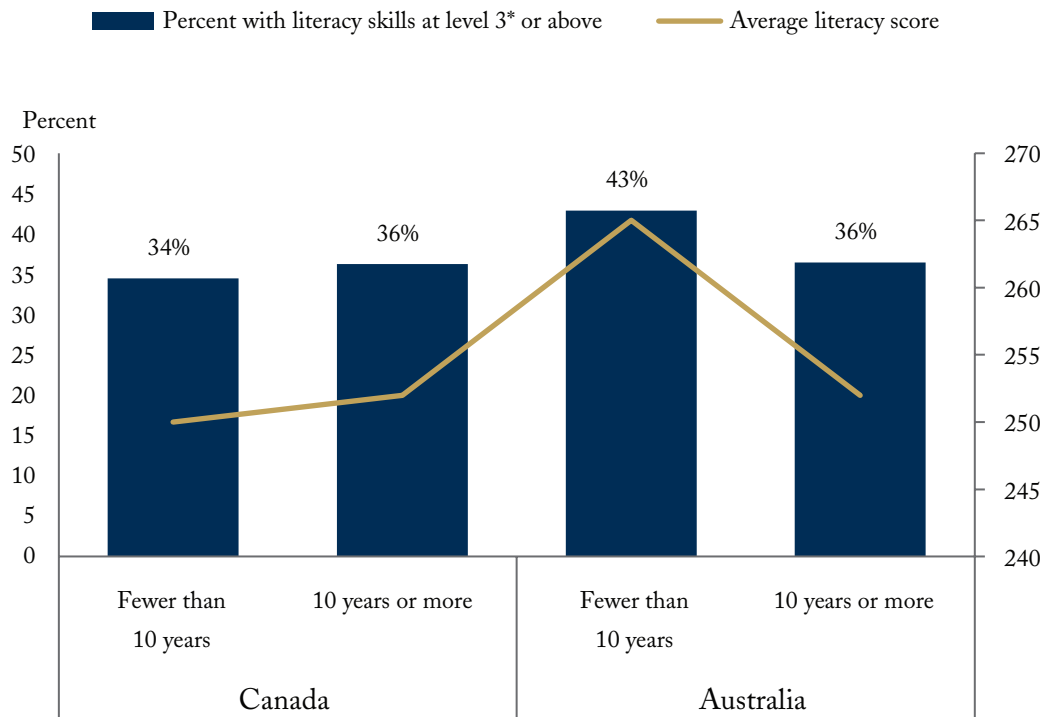
As mentioned, Australia introduced a language proficiency test to its immigration system in the late 1990s that has been identified as successful in improving literacy skills and labour market outcomes of new immigrants, particularly those with a foreign mother tongue.

9 I use an average of weighted estimate of the number of respondents at Level 3 or higher from the 10 plausible values for literacy.

10 Individuals who obtained a minimum 276 score in literacy have literacy proficiency at or above Level 3.

11 The federal government has designated several organizations to evaluate the Canadian equivalency of an educational credential obtained outside of Canada. They include World Education Services, International Credential Assessment Service of Canada and the International Credential Evaluation Service.

Figure 3: Literacy Results of Foreign-language Immigrants, Canada and Australia



Note: * Level 5 in the highest.
Source: PIAAC 2012.

In order to overcome language challenges among immigrants, Canada also adopted a mandatory language proficiency policy more than a decade later. In both countries, the minimum requirement is the intermediate level known as “Competent Language” (Table 4). This level is equivalent, for example, to a minimum score of six out of nine in reading, writing, speaking and listening in the English Language Testing System (IELTS), a common international English-language-proficiency test. In both countries, points are rewarded based on the level of language ability. Applicants with higher language ability receive more points and have a greater chance to be accepted.

However, Canada’s approach is more lenient than Australia’s. Canada assigns two-thirds of total possible language points to applicants under the Federal Skilled Worker program (FSW) who meet the minimum English Language Testing level while Australia provides no reward for candidates under its a skilled immigration program with the same level of language proficiency.

In other words, applicants with the lowest required language skill have a much higher chance to be admitted for immigration in Canada relative to Australia under the skills category. This implies that Australia’s system has mainly targeted candidates with superior language skills, who are more easily able to integrate into the new

society and access more opportunities for gainful employment, while Canada only screens out applicants with very limited language ability.

Recommendations for Improving Immigrants’ Literacy Skills

Moving forward, Canada should embrace strategies that enhance the proportion of working immigrants with higher literacy-skill levels. Reducing skill gaps between immigrants and non-immigrants can be done two ways. First, immigration policies should focus on screening criteria that result in higher skill levels for newcomers. Second, Canada can consider a series of settlement policies that help immigrants to enhance their skill levels after their arrival. This *Commentary* offers three recommendations for admitting immigrants with higher literacy skills: stricter language testing, more emphasis on international students and rigorous language training for targeted immigrants.

Stricter Language Testing and Screening

Canada in recent years has implemented several policy reforms to improve its immigration-selection system. For example, more emphasis is given to identifying younger and more educated candidates, while foreign work experience has become less of a focus. Despite an emphasis on selecting highly skilled immigrants, the Canadian PIAAC data show that education is a relatively crude measure of skills. Indeed, university-educated immigrants obtained a lower score in literacy than non-immigrants with high-school or college education.

Language ability seems to be one of major barriers to immigrants transferring their skills into productive employment. Therefore, Canada needs to consider more rigorous screening policies to ensure that highly educated candidates have adequate literacy skills in order to speed up the integration process. Canada should follow Australia in this respect. In particular, the weight given to language proficiency below the advanced level

Table 4: Points Awarded for Acceptable Levels of Language Ability in the Immigration Point Systems, Canada and Australia

Language Ability	Canada	Australia
Competent Language	16	0
Proficient English	20	10
Superior English	24	20

Source: For Canada: <http://www.cic.gc.ca/english/immigrate/skilled/language-testing.asp>.
For Australia: <http://www.visabureau.com/australia/immigration-points-test.aspx#language>.

should be reduced. For example, the points awarded to candidates with the minimum level of language requirement (competent level), now 67 percent, should not exceed 25 percent of total possible points.

Greater Emphasis on International Students

The better performance of immigrants who obtained their education in Canada highlights the importance of policies that support immigration pathways for former international students and facilitate access to post-secondary education for immigrants after their arrival. Research also shows that immigrants who were international students at Canadian postsecondary institutions do well in the Canadian labour market (Sweetman and Warman 2009).

Currently, international students and post-graduation work-permit holders have an opportunity to become permanent residents of Canada through federal or provincial economic immigration programs. In response to the realization that immigrants who completed their education in Canadian institutions tend to fare well, international students who wish to reside permanently in Canada are placed in a pool with other immigrant groups of skilled workers and receive additional points for their Canadian education.

In 2016, about 3.6 percent of admissions for permanent residency in economic classes were granted to those with prior study-permit holder status. This low proportion is disappointing. Despite the benefits that Canada can receive from admitting more previous study holders as new immigrants, their share in economic-program admissions is trending the wrong way, declining slightly from 3.9 percent in 2012. Ottawa should review its immigration program to evaluate how successful the most recent changes to the immigration system are in favouring international students. Giving more points to those desirable applicants who earned their degree(s) in Canada might see their numbers increase.

Targeted, Rigorous Language Training

Language training programs for newcomers can help them integrate better into the workforce. In fact, a large part of growth in immigrants' earnings is related to improvements in their language proficiency (Dustmann and Van Soest 2002). While post-immigration language training is costly, Chiswick and Miller (1995), however, claim that the cost of training can be justified by extensive improvements in immigrants' labour-market outcomes. Therefore, while tougher pre-screening for language ability of newcomers would be beneficial, more rigorous post-migration language training programs should also be part of the solution.

This is especially true for those arriving through refugee or family programs who, as we have seen, have substantially lower literacy skills than other

immigrants who come through the points system and other skilled programs. Because they would likely not be affected by more rigorous selection policies for other groups, there is a strong case to target more post-migration language training for refugees and family-reunification immigrants.

Conclusion

The 2012 PIAAC results show the literacy gap between immigrants and non-immigrants is larger in Canada than in Australia, despite the fact that immigrants in both countries are mostly selected from well-educated candidates. Furthermore, the lower literacy gap in Australia is mainly due to the skills of more recent immigrants. This outcome suggests that Australia's introduction of rigorous language testing in the late 1990s plays an important role in the superior skills performances of Australian immigrants.

This *Commentary* demonstrates that language proficiency is strongly associated with better literacy scores among Canadian immigrants and recommends more rigorous language testing in the immigration points system and that less weight be given to applicants with only a minimum language-proficiency level. It also advocates providing high-standard language programs for immigrants after their arrival.

APPENDIX

The 2012 PIAAC results in Table 2 are estimated using the following regression:

$$Skill_i = \alpha IMMIG_i + \sum_i \beta_i X_i + \varepsilon_i$$

where skill refers to the literacy test score of participant i , $IMMIG$ is a dummy variable that takes a value of one if respondent in the PIAAC sample is an immigrant and zero otherwise. X is a set of controlling variables, including language background, educational attainments, parental education, age and gender. Language background indicates whether test language was the same as native language. Educational attainment covers five levels of education, including less than high school, high school, college and university.

In this specification, I estimate α and β coefficients using the final weight and its replicate weights. Parameter of α represents the skill gap between immigrants and non-immigrants, which is the coefficient of interest reported in Table 2.

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