How Aussies went: some lessons from Australia's PIAAC results

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Like its predecessor, the Adult Literacy and Life Skills Survey (ALLS), PIAAC is an international survey of adults 16-64 years of age (15-74 in Australia). PIAAC measures the cognitive domains of
- literacy (reading) [literacy also includes the components of reading - word meaning, sentence processing and passage comprehension]
- numeracy
- problem solving in technology-rich environments (PSTRE)

through two modes of administration
- paper and pen
- computer

allows comparison with the results of the ALLS

was administered in OECD and partner countries (including by ABS in Australia) in 2011-12

proficiency is described in terms of a scale of 500 points divided into levels

also provides a rich array of information regarding respondents’ use of skills at work and in everyday life, their education, their linguistic and social backgrounds, their participation in the labour market and other aspects of their well-being (based on almost 300 background questions)

questions and tasks based on common texts and stimuli
After the “filtering” process, what percentage of the adults aged 15-74 across Australia undertook PIAAC on the computer?
Proportions of persons in PSTRE. Total Australian population aged 15-74 years.

Note: ‘Not classified’ refers to those adults who either opted out of the computer based assessment or who failed a basic ICT test or who had no computer experience.
What do we know?

In PISA: 19th out of 65 countries in numeracy (just above the mean). Compared to literacy where we are 14th and significantly above the mean.

In both literacy and numeracy in PISA Australia has significantly declined since 2003.

In PIAAC: 13th out of 23 countries in numeracy (just below the mean). Compared to literacy where we are 4th and significantly above the mean.

In literacy in PIAAC there has been a small improvement since 2006, but a decline in numeracy.

Why the difference between literacy and numeracy?
What do we know? PIAAC

Performance by Level (15-74 yos)

Proportions of persons in Literacy and Numeracy in PIAAC. Total Australian population aged 15-74 years.

Gender (PIAAC):
49.4% of males are at levels 1 or 2
59.0% of females are at levels 1 or 2
A difference of almost 10%!

44% at level 2 or below in literacy
54% at level 2 or below in numeracy
FEW DUTCH WOMEN AT THE BLACKBOARD

There is a low percentage of women teachers in the Netherlands compared to other countries. In most of the other countries, the majority of teachers are women. However, if we include the figures for inspectors and school principals, the proportion shrinks considerably and women are in a minority everywhere.
What is the maximum number of days you should take this medicine?
List three situations for which you should consult a doctor.

                        
                        
                        
Level 3
45.76% correct
According to the announcement, where could you get more information about CIEM?

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Some items

Centre on Internal and External Mobility

**What is CIEM?**

CIEM stands for Centre on Internal and External Mobility, an initiative of the personnel department. A number of workers of this department work in CIEM, together with members from other departments and outside career consultants.

CIEM is available to help employees in their search for another job inside or outside the NZCO Manufacturing Company.

**What does CIEM do?**

CIEM supports employees who are seriously considering other work through the following activities:

- **Job Data Bank**
  After an interview with the employee, information is entered into a data bank that tracks job seekers and job openings at NZCO and at other manufacturing companies.

- **Guidance**
  The employee’s potential is explored through career counselling discussions.

- **Courses**
  Courses are being organised (in collaboration with the department for information and training) that will deal with job search and career planning.

- **Career Change Projects**
  CIEM supports and coordinates projects to help employees prepare for new careers and new perspectives.

- **Mediation**
  CIEM acts as a mediator for employees who are threatened with dismissal resulting from reorganisation, and assists with finding new positions when necessary.

**How much does CIEM cost?**

Payment is determined in consultation with the department where you work. A number of services of CIEM are free. You may also be asked to pay, either in money or in time.

**How does CIEM work?**

CIEM assists employees who are seriously considering another job within or outside the company.

That process begins by submitting an application. A discussion with a personnel counsellor can also be useful. It is obvious that you should talk with the counsellor first about your wishes and the internal possibilities regarding your career. The counsellor is familiar with your abilities and with developments within your unit.

Contact with CIEM in any case is made via the personnel counsellor. He or she handles the application for you, after which you are invited to a discussion with a CIEM representative.

**For more information**

The personnel department can give you more information.

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Level 2

88.76% correct
List two ways in which CIEM helps people who will lose their jobs because of a departmental reorganisation:

1. **Job Data Bank**
   After an interview with the employee, information is entered into a data bank that tracks job seekers and job openings at NZCO and at other manufacturing companies.

2. **Guidance**
   The employee’s potential is explored through career counselling discussions.

**How much does CIEM cost?**
Payment is determined in consultation with the department where you work. A number of services of CIEM are free. You may also be asked to pay, either in money or in time.

**How does CIEM work?**
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Contact with CIEM in any case is made via the personnel counsellor. He or she handles the application for you, after which you are invited to a discussion with a CIEM representative.

**For more information**
The personnel department can give you more information.
Adults were asked to look at a photograph containing two cartons of coca cola bottles (changed to water bottles for PIAAC) and give the total number of bottles in the two full cases.

Pre-Level 1
95.22% correct
Adults were asked to look at the petrol gauge image. The task states that the petrol tank holds 48 litres and asks the respondent to determine how many litres remain in the tank. A range of answers are allowable as correct.

Level 2
82.99% correct
Compare the per cent of change in Dioxin level from 1975 to 1985 to the per cent of change in Dioxin level from 1985 to 1995. Which per cent of change is larger, why?
### Some items

**PIAAC Question ID: E323005S: CL / 323 - Library Search**
One of the most difficult literacy tasks in PIAAC is also associated with the “Library Search” unit. The respondent is asked to identify the book likely to be least useful in providing more information about genetically modified food. As mentioned in the framework, negative phasing is more complex than affirmative, so evaluating the 10 books in terms of which is least useful for the defined purpose is expected to be difficult. The fact that the correct selection is located at the end of the second page of results also increases the difficulty of the task. The respondent must read and evaluate each of the choices in order to make a correct selection.

<table>
<thead>
<tr>
<th>Percentage Correct</th>
<th>OECD Average Percentage Correct</th>
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<tbody>
<tr>
<td>12.53%</td>
<td>19.70%</td>
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**PIAAC Question ID: C611517S: CN / 611 - Temp Scale**
Use the scale to estimate what the high temperature predicted for Bangkok would be in degrees Celsius (if the scale were extended).

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<tr>
<th>Percentage Correct</th>
<th>OECD Average Percentage Correct</th>
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<tbody>
<tr>
<td>63.06%</td>
<td>54.69%</td>
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**PIAAC Question ID: C617605S: CN / 617 - Map**
Use the map on the opposite page
Follow the instructions written under the map on the opposite page and mark the path directly on the map with your pen.

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<thead>
<tr>
<th>Percentage Correct</th>
<th>OECD Average Percentage Correct</th>
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<tbody>
<tr>
<td>60.23%</td>
<td>51.22%</td>
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Further information

PISA and PIAAC


The OECD website for PISA is: [http://www.oecd.org/pisa/](http://www.oecd.org/pisa/)

The OECD website for PIAAC is: [www.oecd.org/site/piaac/](http://www.oecd.org/site/piaac/)

PIAAC reports are available from: [www.oecd.org/site/piaac/publications.htm](http://www.oecd.org/site/piaac/publications.htm)


PIAAC conference videos: [vimeo.com/album/2571591](https://vimeo.com/album/2571591). The two key overview videos are these two:

[vimeo.com/album/2571591/video/79372616](https://vimeo.com/album/2571591/video/79372616) &

A recent (May 2014) analysis of the Australian PIAAC data has been done by the Productivity Commission: [www.pc.gov.au/research/staff-working/literacy-numeracy-skills](http://www.pc.gov.au/research/staff-working/literacy-numeracy-skills)

And please contact me for further information: Dave Tout, ACER
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Questions?