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Foundation Skills – What are they?
Why should I care?

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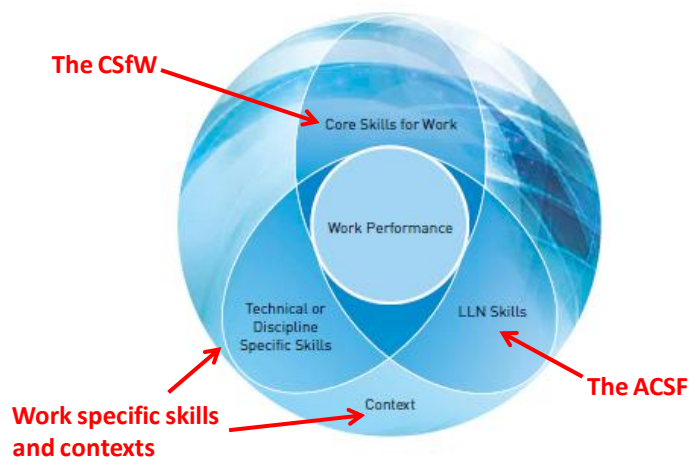
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Outline

➢ What are Foundation Skills?
➢ What do we know?
➢ Implications
➢ What is FSAT?
➢ Feedback

What are Foundation Skills?

- ➢ Literacy and numeracy (L&N)
- ➢ Employability skills
- ➢ Not just the 3 R's of basic reading, 'riting and 'rithmetic
- ➢ Not just low level skills – a continuum from low level through to a very high level
- ➢ Work and life in the 21st Century demands higher level L&N skills.

What are Foundation Skills?

- ➢ Literacy and numeracy (L&N) – the Australian Core Skills Framework (ACSF)
- ➢ Employability skills – the new Core Skills for Work (CSfW) Development framework

The CSfW

Core Skills for Work

Work Performance

Technical or Discipline Specific Skills

LLN Skills

Context

Work specific skills and contexts

The ACSF

But what do we know about Australians' L&N skills

PISA – the Programme for International Student Assessment
- carried out with a random sample of 15 year old students from a random sample of schools, every 3 years
- last assessment was in 2012 and major domain was mathematical literacy
- focuses on mathematical, reading and scientific literacy
- administered in pen and paper with an optional computer based assessment (Australia did both formats)

But what do we know about Australians' L&N skills

PIAAC, the Programme for International Assessment of Adult Competencies is an international survey of adult skills in:
- literacy, numeracy and problem solving in technology-rich environments
- ABS conducted this household survey in Australia in 2011-12
- people 16 – 64 years of age are surveyed.
- Australia over samples and surveys a representative random sample of 15 – 74 year olds
- the survey can be done by pen and paper or computer
- participants answer a significant number of background questions which, together with the survey data, provide the potential for rich analysis

What do we know about L&N skills?

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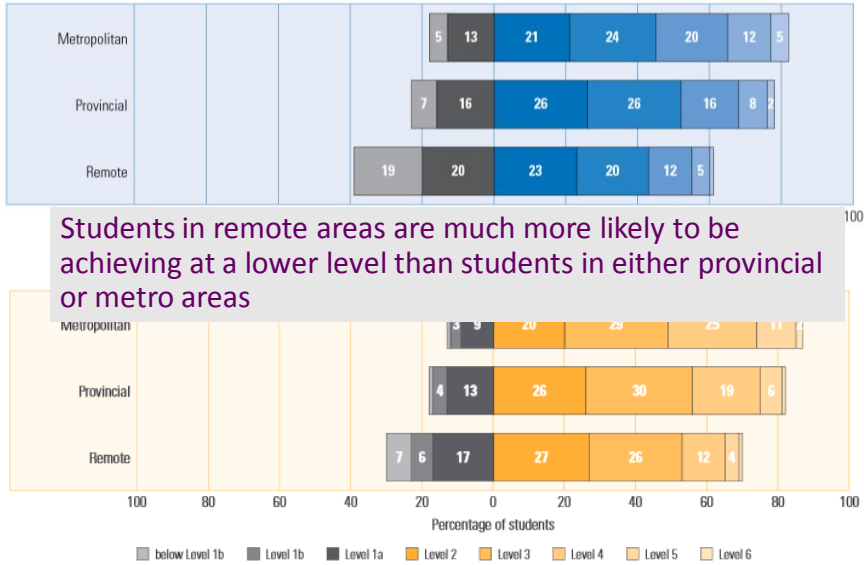
In both literacy and numeracy Australia has significantly declined since 2003.

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.
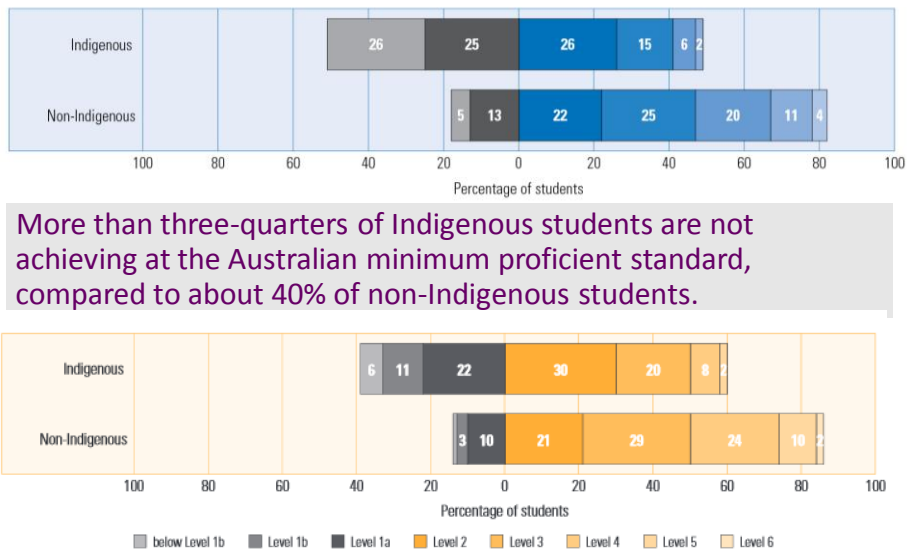
What do we know about L&N skills?

In relation to PISA, the results for example, mean that **44%** of the students tested in numeracy do not meet the Australian minimum proficiency level (and **36%** in reading) as identified in the Measurement Framework for Schooling in Australia (ACARA, 2013) as representing a "challenging but reasonable expectation of student achievement at a year level, with students needing to demonstrate more than the elementary skills expected at this level"
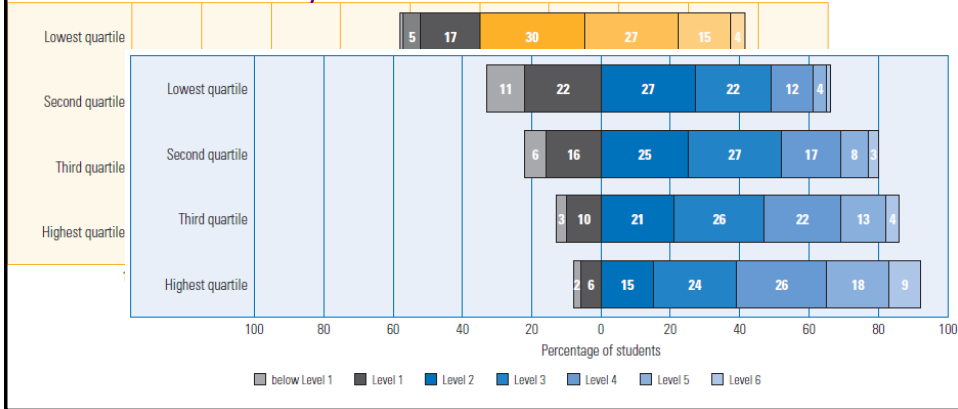
.. and in relation to equity groups ...

Students in remote areas are much more likely to be achieving at a lower level than students in either provincial or metro areas

.. and in relation to equity groups ...

More than three-quarters of Indigenous students are not achieving at the Australian minimum proficient standard, compared to about 40% of non-Indigenous students.
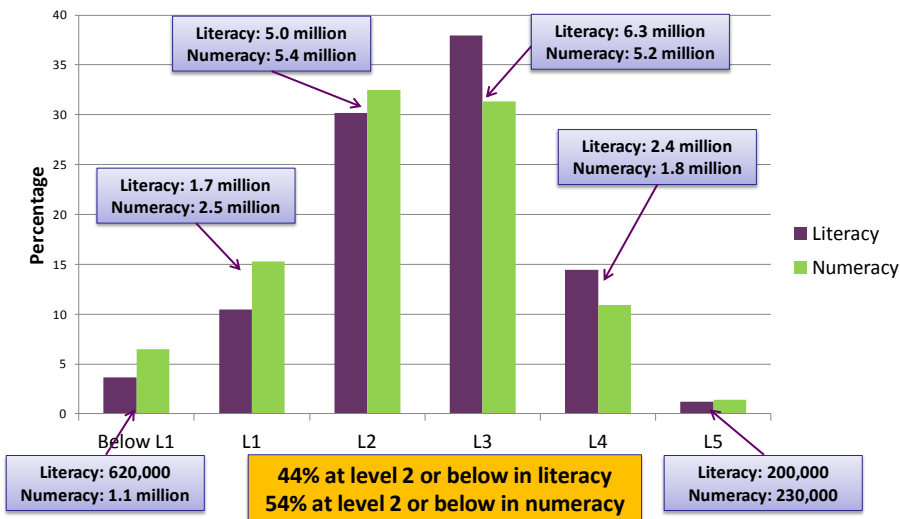
.. and in relation to equity groups ...

Socioeconomic background:
53% of Australian students in the lowest quartile of SES not meeting the Australian minimum proficient level compared to 18% of those in the highest SES quartile in reading and 60% vs 23% for numeracy

Some PIAAC results

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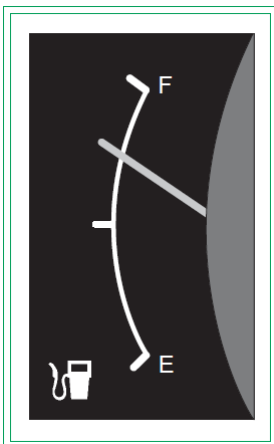
Some PIAAC results

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.

This was a **Pre-Level 1** item:
Tasks at this level are set in concrete, familiar contexts where the mathematical content is explicit with little or no text or distractors and that require only simple processes such as counting, sorting, performing basic arithmetic operations with whole numbers or money, or recognizing common spatial representations.

1.1 million Australians aged 15-74 years of age are operating at this level.
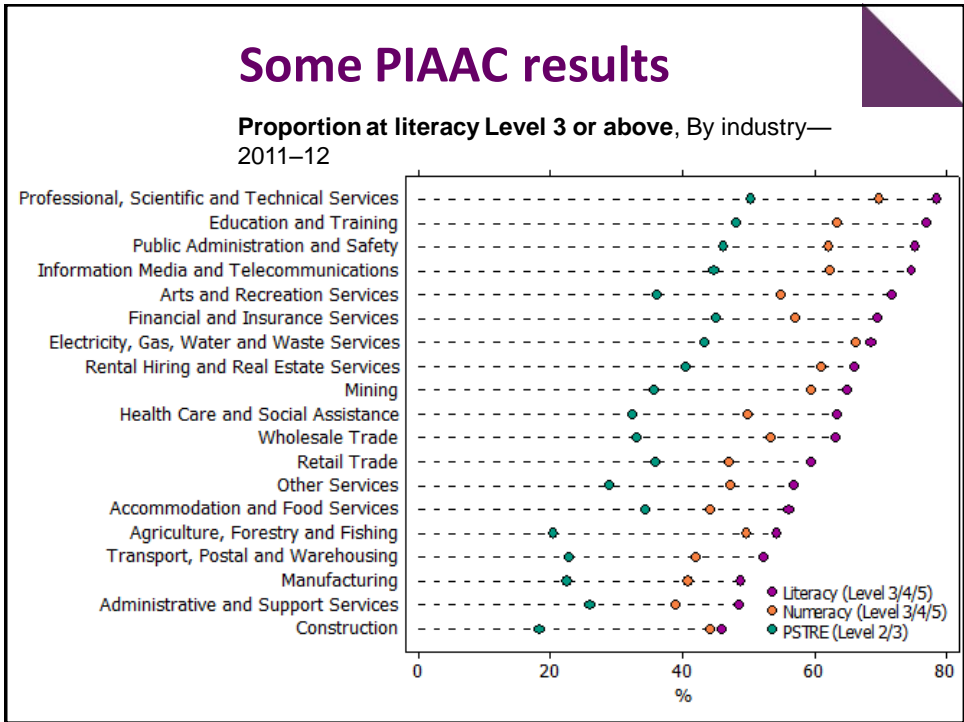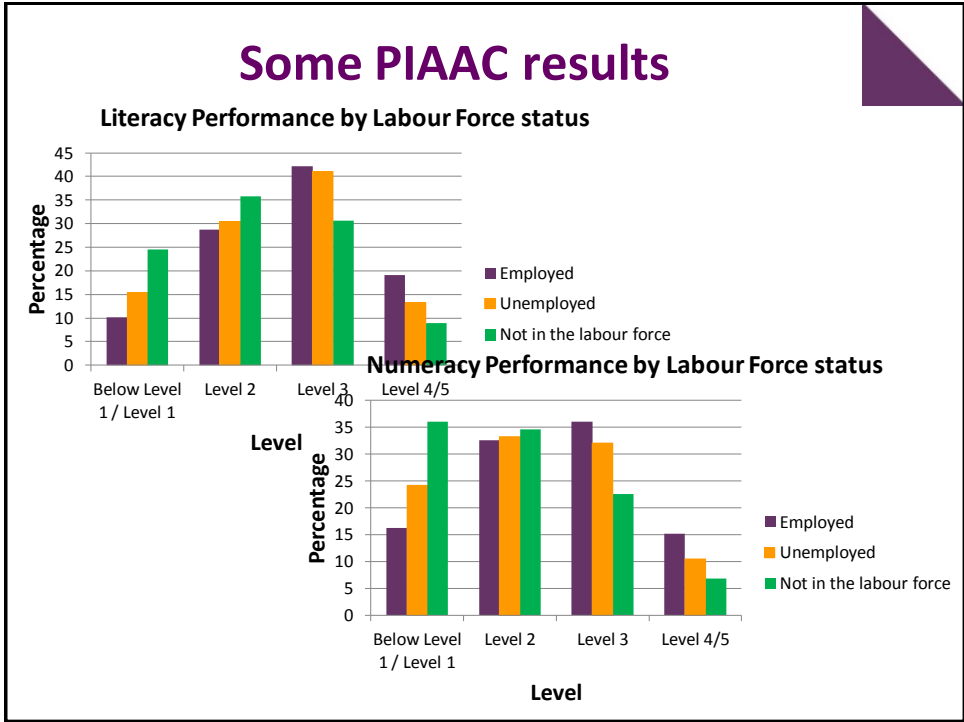
Some PIAAC results

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.
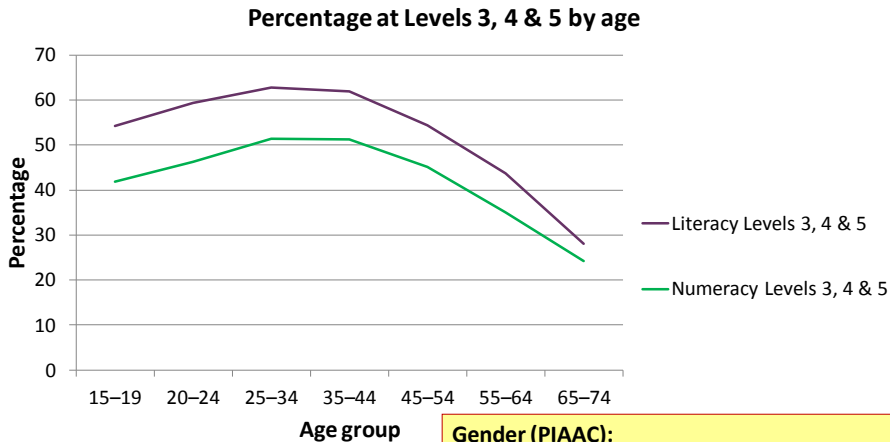
This was a **Level 2** item:
Tasks in this level require the respondent to identify and act upon mathematical information and ideas embedded in a range of common contexts where the mathematical content is fairly explicit or visual with relatively few distractors. Tasks tend to require the application of two or more steps or processes involving, for example, calculation with whole numbers and common decimals, percents and fractions; simple measurement and spatial representation; estimation; and interpretation of relatively simple data and statistics in texts, tables and graphs.

About 3.6 million Australians aged 15-74 years of age could NOT answer this question.

Some PIAAC results

Literacy Performance by Labour Force status

Numeracy Performance by Labour Force status

Some PIAAC results

Proportion at literacy Level 3 or above, By industry—2011–12

Some PIAAC results

Percentage at Levels 3, 4 & 5 by age

Chart: Percentage (y-axis, 0–70) by Age group (x-axis: 15–19, 20–24, 25–34, 35–44, 45–54, 55–64, 65–74)

— Literacy Levels 3, 4 & 5

— Numeracy Levels 3, 4 & 5

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%, as it was in ALLS!

The benefits of higher L&N skills

Based on three cycles of international assessments of adult literacy and numeracy skills (IALS, ALLS and PIAAC), the research indicates, amongst a number of other findings, that people with higher LLN skills are significantly **more** likely to:

➢ be employed
➢ participate in their community
➢ experience better health
➢ engage in further training
➢ earn more on average

As well:
➢ each extra year of education improves L&N skills
➢ new Australian research from the Productivity Commission: http://www.pc.gov.au/research/staff-working/literacy-numeracy-skills
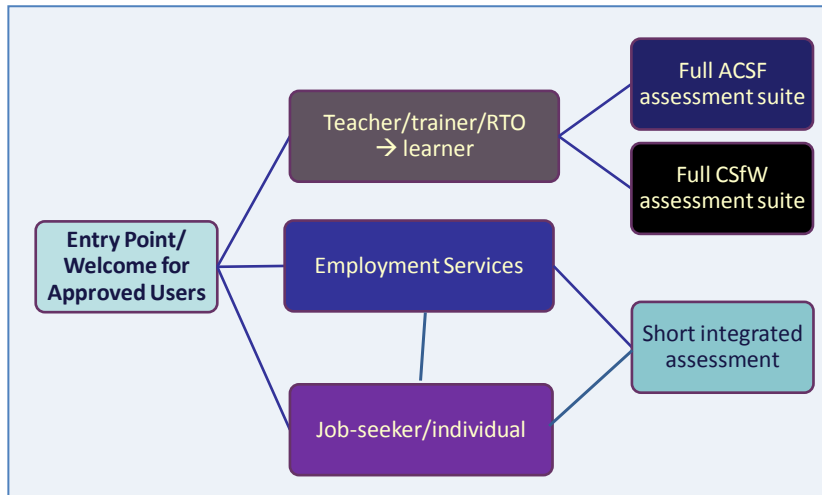
Implications?

- L&N are at the core of being able to participate effectively in work and community life, VET training and the workplace
- There **WILL** be significant L&N problems for:
  - Unemployed people
  - Retrenched workers
  - Learners wanting to undertake higher level qualifications
- There will often be a mismatch between learner's skills and abilities in L&N and in the levels required in accessing information, applications, etc

What is FSAT?

- The Department of Industry has contracted ACER to develop an online **Foundation Skills Assessment Tool (FSAT)** to identify and assess an individual's foundation skill levels
- Large team of internal and external subject matter experts – uses a range of QA processes incl. empirical data to confirm validity and reliability
- The tool will be available **free** to assist approved providers and identified learners, job seekers, trainers, educators and employment services practitioners to assess their own or a client's foundation skill levels, and help identify any gaps in skills and knowledge.
- The FSAT will be based around the theoretical underpinnings of the Australian Core Skills Framework and the Core Skills for Work Developmental Framework (employability skills).
- There is to be two assessments – a **Full Assessment** and an **Integrated Short Assessment**.
- This integrated short assessment will provide an indicator of an individual's skills against reading and numeracy alongside an assessment of some aspects of their core skills for work. Intention is to target lower levels of the ACSF only.
- Will be developed after trialling of other assessment questions.
- Website at: http://www.acer.edu.au/tests/fsat

Delivery of FSAT

Entry Point/ Welcome for Approved Users
- Teacher/trainer/RTO → learner
  - Full ACSF assessment suite
  - Full CSfW assessment suite
- Employment Services
  - Short integrated assessment
- Job-seeker/individual

Platform – Key Features

- ➢ Select assessments from 16 skill areas across 2 frameworks
- ➢ Practitioners will be able to tailor assessments for individuals and/or groups
- ➢ ACSF Assessments can be selected at suitable test taker levels: low and middle
- ➢ Newly developed online interactive item types have been developed
- ➢ Test takers can complete relevant assessments over time
- ➢ Individual reports available to test takers against each assessment
- ➢ Data and reports for RTOs include levels, indicators, question intents, etc.

Platform – Key Features

- The FSAT assessments will include different types and styles of assessment, including:
  - ❑ computer-adaptive assessments
  - ❑ questions and responses based on scenarios
  - ❑ self reflective tasks
  - ❑ manually scored assessments for core skills where online automatically scored assessment is not (currently) possible.

Employability skills (CSfW): Generic scenarios

A set of authentic scenarios for each Skill Area

- Workplace and community settings
- People, tasks, interactions that reflect real life situations (as far as possible)
- No highly specific, context-dependent knowledge needed
- Most respondents likely to have some past experience to bring, but some scenarios will be quite unfamiliar (sometimes that's the point!)

CSfW: 10 Skill Areas in 3 clusters

Navigate the world of work
➢ Manage career and work life
➢ Work with roles, rights and protocols

Interact with others
➢ Communicate for work
➢ Connect and work with others
➢ Recognise and utilise diverse perspectives

Get the work done
➢ Plan and organise
➢ Make decisions
➢ Identify and solve problems
➢ Create and innovate
➢ Work in a digital world

What does FSAT look like?

➢ Demonstration of sample assessment tasks to show how they will look and different types of interactivity and response.

Feedback

Discuss the following

If you were to use the short abbreviated FSAT:
➢ How would you use it?
➢ Who would you use it with?
➢ For what purpose?
➢ Which core skills or skills areas?
➢ What challenges, questions and issues do you have?
➢ What are the benefits and advantages?
➢ Other comments.

Send feedback, or to participate in trials, send an email to:
fsat@acer.edu.au

Thanks!

For more information visit:
www.acer.edu.au/tests/fsat/fsat-latest-news

Further information

PISA and PIAAC

For further information on PISA visit http://www.acer.edu.au/ozpisa/pisa-australia

The OECD website for PISA is: http://www.oecd.org/pisa/

The OECD website for PIAAC is: www.oecd.org/site/piaac/

PIAAC reports are available from: www.oecd.org/site/piaac/publications.htm

For the details of the Australian PIAAC results go to the ABS website at:
www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/4228.0Main+Features12011-12?OpenDocument

PIAAC conference videos: vimeo.com/album/2571591. The two key overview videos are these two:

vimeo.com/album/2571591/video/79372616 & vimeo.com/album/2571591/video/78496266

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

And the Australian Industry Group's employer guide to the ACSF is now available from:

http://www.aigroup.com.au/portal/site/aig/education/buildingemployer/