

Erratum for the TIMSS 2007 Australian brief report - Highlights from TIMSS 2007 from Australia's perspective

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Due to an error in the international datasets for all countries, the results for the *Knowing* and *Applying* cognitive domains were inadvertently mislabelled, so that all data labelled *Knowing* actually pertain to *Applying* and all data labelled *Applying* actually pertain to *Knowing* data. This error has been rectified in the on-line version of this brief report – any written copies should have this erratum attached.

The following pages should be replaced by the accompanying document:

- **Pages 25-26**

What does TIMSS tell us about achievement in the mathematics content and cognitive domains?

The TIMSS mathematics tests were organised along two dimensions – a cognitive dimension and a content dimension. The content domains included *number*, *geometric shapes and measures/geometry*, *data display/data and chance*, and *algebra*. The cognitive domains are *knowing*, *applying* and *reasoning*. These tables show the balance of the items across the content and cognitive domains.

Table 8 Mathematics Content Domains

	Year 4	Year 8
Number	50%	30%
Geometry Shapes and Measures/Geometry	35%	20%
Data Display/ Data and Chance	15%	20%
Algebra (Year 8)	-	30%

Table 9 Mathematics Cognitive Domains

	Year 4	Year 8
Knowing	40%	35%
Applying	40%	40%
Reasoning	20%	25%

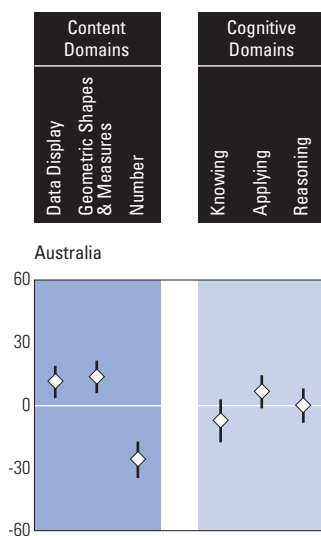


Figure 15 Year 4 mathematics content and cognitive domain within-country comparison - Australia

- Year 4 Australian students performed less well in *number* while they performed considerably better in *geometric shapes and measures*.
- In terms of the cognitive domains, Australian Year 4 students performed less well in the *knowing* domain while showing relative strength in the *applying* domain.

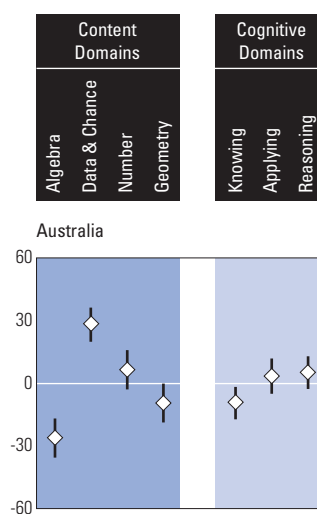


Figure 16 Year 8 mathematics content and cognitive domain within-country comparison - Australia

- At Year 8, students in Australia performed less well in *algebra* while they performed relatively better in *data and chance*. In terms of the cognitive domains, Year 8 students in Australia performed relatively equally across all domains. While *knowing* appears to be the relatively weaker domain, this difference was not significant.

What does TIMSS tell us about achievement in the science content and cognitive domains?

The TIMSS science tests were also organised along a cognitive dimension and a content dimension. The content domains included *life science/biology*, *physical science/chemistry* and *physics*, and *Earth science*. The cognitive domains are *knowing*, *applying* and *reasoning*. These tables show the balance of the items across the content and cognitive domains.

Table 10 Science Content Domains

	Year 4		Year 8
Life Science	45%	Biology	35%
Physical Science	35%	Chemistry	20%
		Physics	25%
Earth Science	20%	Earth Science	20%

Table 11 Science Cognitive Domains

	Year 4	Year 8
Knowing	40%	30%
Applying	35%	35%
Reasoning	25%	35%

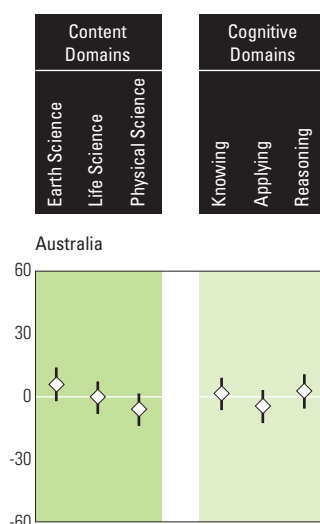


Figure 17 Year 4 science content and cognitive domain within-country comparison - Australia

- Year 4 Australian students performed less well in *physical science* and *life science*, while they performed considerably better in *Earth science*.
- In terms of the cognitive domains, Australian Year 4 students performed less well in the *applying* domain while they performed better in the *reasoning* and *knowing* domains.

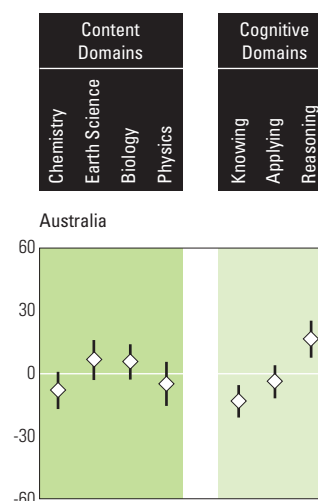


Figure 18 Year 8 science content and cognitive domain within-country comparison - Australia

- Year 8 students in Australia performed less well in *chemistry* and *physics* while they performed relatively better in *biology* and *Earth science*.
- In terms of the cognitive domains, Australian Year 8 students' achievement in the *knowing* domain was an area of relative weakness, while the *reasoning* domain was an area of relatively stronger performance.