

Chapter 1 Attainment in PIRLS 2011

Chapter outline

This chapter summarises pupils' attainment in the Progress in International Reading Literacy Study (PIRLS) in 2011 and over time. Outcomes for England are compared with those of other countries.

Key findings

- England's average scale score of 552 is above the scale centre point of 500. This is significantly higher than thirty-one countries, and significantly lower than just five countries.
- This performance is an improvement over that on the 2006 survey. The highest scoring countries in 2006 (Hong Kong, the Russian Federation and Singapore) remain the highest scoring countries in 2011 and two new entrants, Finland and Northern Ireland, also scored significantly higher than England.
- Following a fall in 2006, England's performance is now very close to that achieved in 2001. Of the higher achieving countries (average scale score over 500), only two, the United States and Chinese Taipei, showed a greater improvement than England between 2006 and 2011.

1.1 Attainment in 2011

Table 1.1 shows the distribution of reading achievement in PIRLS 2011 for all 45 participating countries. Countries are shown in descending order of average reading achievement. The scale score for England was 552, significantly above the international average. The highest scoring participant was Hong Kong with a scale score of 571, and Morocco was the lowest scoring country with a scale score of 310.

England performed better than both Australia and New Zealand among the English-speaking countries; Northern Ireland performed better than England.

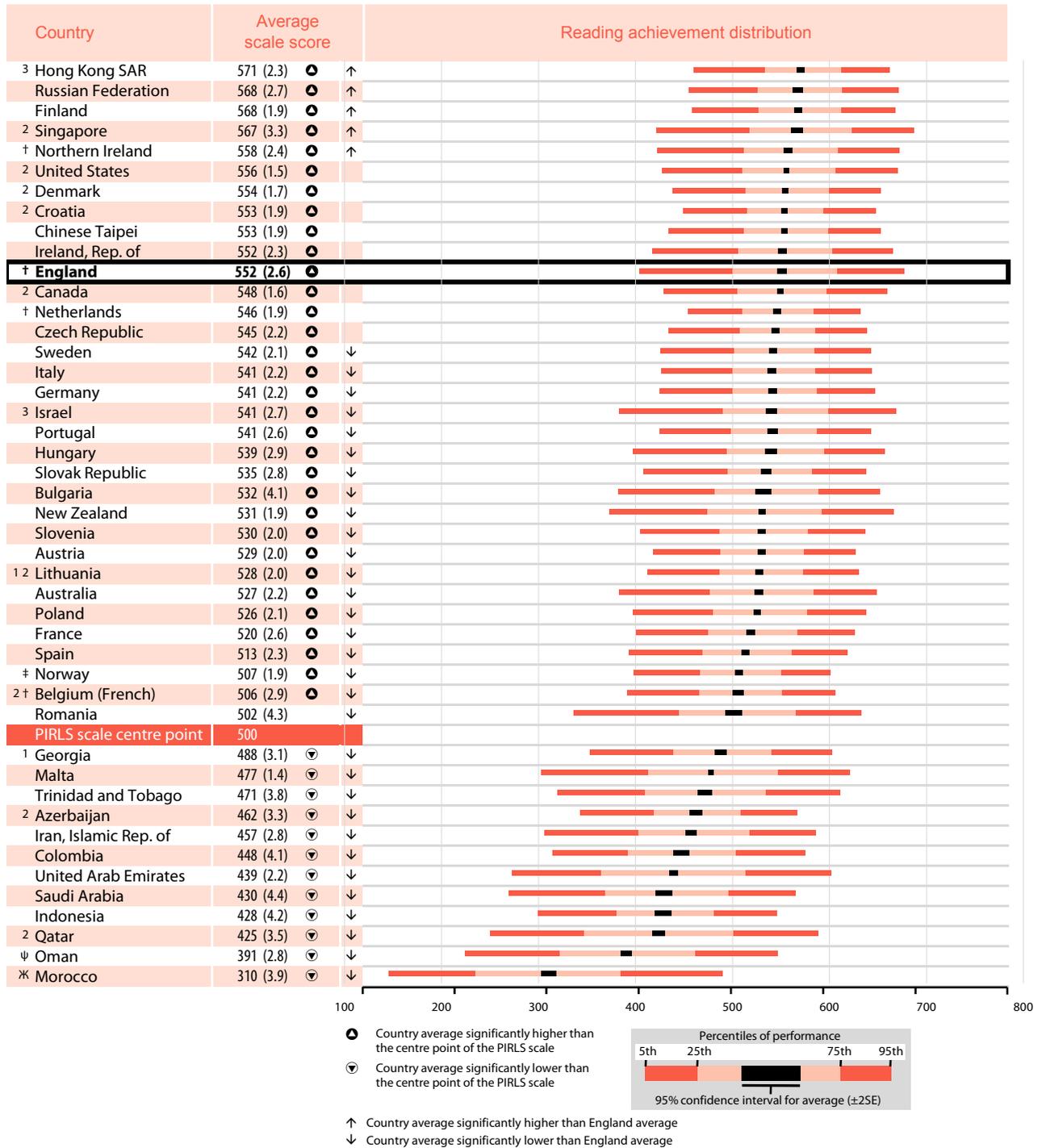
The three top performing countries in 2006, the Russian Federation, Hong Kong and Singapore, also performed very well in 2011, and two newcomers, Finland and Northern Ireland, also achieved high average scores.

Interpreting the data: achievement scale

The PIRLS reading achievement scale was established in PIRLS 2001 to have a centre point of 500 and a standard deviation of 100. It was designed to remain constant from assessment to assessment, allowing comparison over time.

Countries participating in PIRLS follow guidelines and strict sampling targets to provide samples that are nationally representative.

Table 1.1 Distribution of reading achievement



✳ Average achievement not reliably measured because the percentage of pupils with achievement too low for estimation exceeds 25%.

ψ Reservations about reliability of average achievement because the percentage of pupils with achievement too low for estimation does not exceed 25% but exceeds 15%.

See Appendix C.2 in the international report for target population coverage notes 1, 2, and 3.

See Appendix C.5 for sampling guidelines and sampling participation notes † and ‡.

() Standard errors appear in parentheses. Because of rounding some results may appear inconsistent.

Source Exhibit 1.1 in the 2011 international PIRLS report

Interpreting the data: international rankings

In Table 1.1 the mean scores on the PIRLS achievement scale (with 95 per cent confidence intervals) are shown graphically as the darkened areas on the achievement distributions, and listed (together with their standard errors) in the first column in the table. There is an indication beside a country's mean scale score if the average achievement is significantly higher (large up arrow) or lower (large down arrow) than the scale mean of 500. There is also a smaller arrow used to indicate if a country's mean scale score is significantly higher (small up arrow) or lower (small down arrow) than that of England.

The standard error refers to uncertainty in estimates resulting from random fluctuations in samples. The smaller the standard error, the more precise the score is as an estimate of the population's score. The distribution of scores is discussed in chapter 2.

Five countries had significantly higher average achievement than England and the average achievement of a further eight countries was not significantly different from that of England. The remaining 31 countries had significantly lower average achievement. This data is shown in Table 1.2.

Table 1.2 Country performance compared with England

Countries scoring significantly higher than England			
Country	Average score	Country	Average score
Hong Kong SAR	571	Singapore	567
Russian Federation	568	Northern Ireland	558
Finland	568		
Countries not significantly different from England			
Country	Average score	Country	Average score
United States	556	England	552
Denmark	554	Canada	548
Croatia	553	Netherlands	546
Chinese Taipei	553	Czech Republic	545
Republic of Ireland	552		
Countries scoring significantly lower than England			
Country	Average score	Country	Average score
Sweden	542	Austria	529
Italy	541	Lithuania	528
Germany	541	Australia	527
Israel	541	Poland	526
Portugal	541	France	520
Hungary	539	Spain	513
Slovak Republic	535	Norway	507
Bulgaria	532	Belgium (French)	506
New Zealand	531	Romania	502
Slovenia	530	and a further 12 countries with average achievement below the centre point of 500	

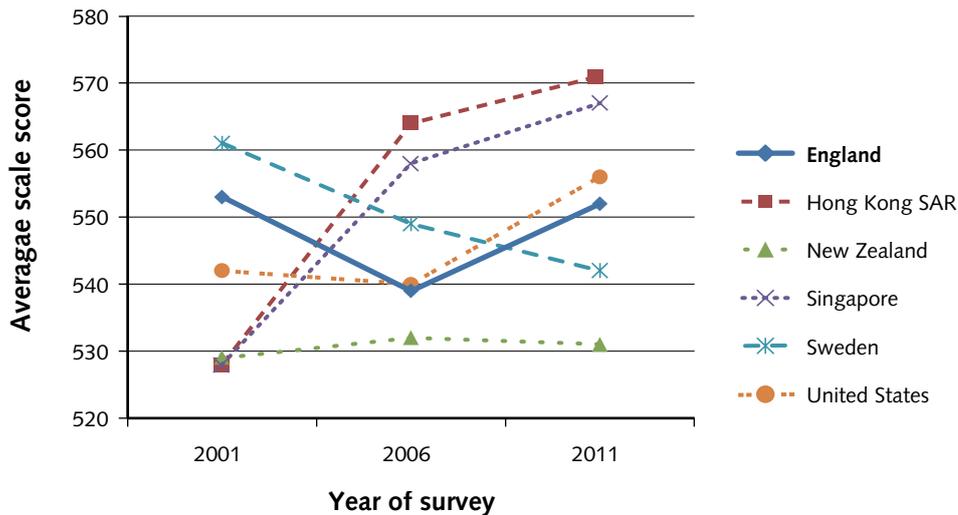
1.2 Trends in reading attainment

The 2011 survey was the third in the PIRLS series and the outcomes for selected countries which participated in all three surveys are shown in Figure 1.1. England's performance in 2011 was significantly higher than that in 2006 and was not significantly different from that in 2001. Of the higher achieving countries (those with an average achievement score of over 500), only two (the United States and Chinese Taipei) showed a greater improvement than England between 2006 and 2011.

This pattern in attainment in England is different from that of most other countries. Three countries, including Hong Kong and Singapore who are among the highest achieving, made significant improvements in both 2006 and 2011, although by far the greater improvements were between 2001 and 2006. The only other country to show consecutive significant improvements was Slovenia.

The United States recorded a significant improvement between 2006 and 2011, having seen no significant change between the first two surveys. New Zealand recorded no significant changes in either 2006 or 2011. Sweden recorded a significant decline between 2001 and 2006 and again between 2006 and 2011, as did one other country, Lithuania. PIRLS 2011 was the first survey for two high achieving countries, Finland and Northern Ireland.

Figure 1.1 Trends in attainment 2001–2011 for selected countries



Of the four countries which had a scale score of 550 or more in 2001 (Sweden, the Netherlands, England and Bulgaria), only one, England, maintained this distinction in 2011. Nevertheless, when the rankings are compared, from a position of third in the overall table in 2001, in 2011 England was 10th equal. This reflects both the changing composition of the surveys in terms of participating countries and the fact that some countries have made considerable progress over this period. Appendix B summarises the trends in performance over the three surveys.