

Chapter 3 Attainment by gender and by language context

Chapter outline

This chapter summarises pupils' attainment by gender in the 2011 survey and over time.

Contextual information about the frequency with which pupils speak English and the proportions of pupils in school who have English as an additional language is also outlined.

Key findings

- Girls performed significantly better than boys in PIRLS in England and in almost all other participating countries.
- The difference between the attainment of boys and girls was greater in England than in most other countries and has remained stable across all three PIRLS surveys.
- A fifth of pupils in the survey in England speak at least one other language in addition to English at home.

3.1 Attainment by gender

Girls consistently achieve higher than boys in national¹ and international reading assessments and, following this pattern, girls performed significantly better than boys in PIRLS in England and in almost all other participating countries.

England had one of the widest gender gaps in PIRLS 2001 and 2006 and this remains the case in 2011. Table 3.1 shows the average attainment in PIRLS for boys and girls in all participating countries. The extent of the difference is shown on the right and countries are ordered from the smallest to the largest difference.

There is no association between a country's overall achievement and the extent of the gender difference in PIRLS. The five highest achieving countries, Hong Kong, the Russian Federation, Finland, Singapore and Northern Ireland, all had gender differences that were equal to or greater than the international average. All ten of the countries with a gender difference of less than 10 scale points had a mean achievement lower than that of England.

The extent of the gender difference varied across English-speaking countries: the United States, for example, had a gender difference of 10 scale points, less than the international average. The gap between the performance of boys and girls in England and in New Zealand, at 23 and 20 scale points respectively, was greater than the average.

¹ In national reading assessments at the end of primary school in 2012 (involving the same cohort as PIRLS' pupils) test results indicate that 90 per cent of girls and 84 per cent of boys achieved the expected level or above. Department for Education (2012). *National Curriculum Assessments at Key Stage 2 in England, 2012 (Provisional)*. Available: <http://www.education.gov.uk/rsgateway/DB/SFR/s001087/index.shtml>

Table 3.1 Average reading achievement by gender

Country	Girls		Boys		Difference (absolute value)	Gender difference	
	Per cent of pupils	Average scale score	Per cent of pupils	Average scale score		Girls scored higher	Boys scored higher
Colombia	49 (1.3)	447 (4.6)	51 (1.3)	448 (4.6)	1 (3.9)		
Italy	50 (0.7)	543 (2.4)	50 (0.7)	540 (2.7)	3 (2.4)		
France	49 (0.8)	522 (3.4)	51 (0.8)	518 (2.4)	5 (2.7)		
Spain	49 (0.8)	516 (2.5)	51 (0.8)	511 (2.8)	5 (2.5)		
² † Belgium (French)	49 (0.9)	509 (3.1)	51 (0.9)	504 (3.1)	5 (2.3)		
³ Israel	51 (1.6)	544 (3.1)	49 (1.6)	538 (3.4)	6 (3.4)		
Czech Republic	49 (1.2)	549 (2.5)	51 (1.2)	542 (2.5)	6 (2.6)		
† Netherlands	51 (0.7)	549 (2.1)	49 (0.7)	543 (2.2)	7 (2.0)		
Austria	49 (1.2)	533 (2.2)	51 (1.2)	525 (2.3)	8 (2.3)		
Germany	49 (0.8)	545 (2.3)	51 (0.8)	537 (2.7)	8 (2.5)		
Slovak Republic	49 (0.8)	540 (3.1)	51 (0.8)	530 (2.8)	10 (2.1)		
² United States	51 (0.5)	562 (1.9)	49 (0.5)	551 (1.7)	10 (1.8)		
² Denmark	50 (0.7)	560 (1.9)	50 (0.7)	548 (2.1)	12 (2.2)		
² Canada	49 (0.6)	555 (1.7)	51 (0.6)	542 (2.1)	12 (2.0)		
Poland	48 (0.9)	533 (2.5)	52 (0.9)	519 (2.7)	14 (3.1)		
² Azerbaijan	47 (0.9)	470 (3.6)	53 (0.9)	456 (3.5)	14 (2.3)		
² Croatia	50 (0.8)	560 (2.1)	50 (0.8)	546 (2.2)	14 (2.2)		
Sweden	49 (1.0)	549 (2.4)	51 (1.0)	535 (2.5)	14 (2.7)		
Portugal	49 (1.2)	548 (3.0)	51 (1.2)	534 (2.8)	14 (2.4)		
‡ Norway	52 (1.0)	514 (2.2)	48 (1.0)	500 (2.7)	14 (3.1)		
Chinese Taipei	47 (0.6)	561 (2.1)	53 (0.6)	546 (2.1)	15 (2.1)		
Bulgaria	49 (0.9)	539 (4.5)	51 (0.9)	524 (4.3)	15 (3.5)		
Romania	48 (0.9)	510 (4.8)	52 (0.9)	495 (4.3)	15 (3.3)		
Ireland, Rep. of	49 (2.2)	559 (2.9)	51 (2.2)	544 (3.0)	15 (3.9)		
Hungary	49 (0.9)	547 (3.2)	51 (0.9)	532 (3.2)	16 (2.6)		
Slovenia	48 (0.8)	539 (2.2)	52 (0.8)	523 (2.7)	16 (3.1)		
† Northern Ireland	50 (1.2)	567 (2.5)	50 (1.2)	550 (3.2)	16 (3.4)		
³ Hong Kong SAR	46 (1.2)	579 (2.3)	54 (1.2)	563 (2.5)	16 (2.2)		
Australia	49 (1.1)	536 (2.7)	51 (1.1)	519 (2.7)	17 (3.1)		
² Singapore	49 (0.6)	576 (3.5)	51 (0.6)	559 (3.6)	17 (2.6)		
Malta	49 (0.5)	486 (1.9)	51 (0.5)	468 (2.0)	18 (2.8)		
Indonesia	51 (0.9)	437 (4.5)	49 (0.9)	419 (4.3)	18 (2.3)		
¹ ² Lithuania	48 (0.8)	537 (2.4)	52 (0.8)	520 (2.4)	18 (2.8)		
Russian Federation	49 (1.0)	578 (2.8)	51 (1.0)	559 (3.1)	18 (2.3)		
Iran, Islamic Rep. of	49 (2.9)	467 (4.3)	51 (2.9)	448 (4.3)	20 (6.4)		
New Zealand	49 (1.0)	541 (2.2)	51 (1.0)	521 (2.7)	20 (3.1)		
Finland	49 (0.8)	578 (2.3)	51 (0.8)	558 (2.2)	21 (2.3)		
¹ Georgia	48 (0.9)	499 (2.7)	52 (0.9)	477 (4.0)	22 (3.0)		
† England	49 (1.0)	563 (3.0)	51 (1.0)	540 (3.1)	23 (3.0)		
United Arab Emirates	50 (1.6)	452 (3.0)	50 (1.6)	425 (3.5)	27 (4.8)		
* Morocco	48 (0.8)	326 (4.0)	52 (0.8)	296 (4.6)	29 (3.9)		
² Qatar	47 (3.4)	441 (4.7)	53 (3.4)	411 (4.2)	30 (6.0)		
Trinidad and Tobago	49 (2.0)	487 (4.5)	51 (2.0)	456 (4.3)	31 (4.6)		
ψ Oman	49 (0.7)	411 (3.0)	51 (0.7)	371 (3.4)	40 (2.9)		
Saudi Arabia	52 (1.5)	456 (3.1)	48 (1.5)	402 (8.2)	54 (8.8)		
International Avg.	49 (0.2)	520 (0.5)	51 (0.2)	504 (0.5)	16 (0.5)		

✱ 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 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 1.5 in the 2011 international PIRLS report

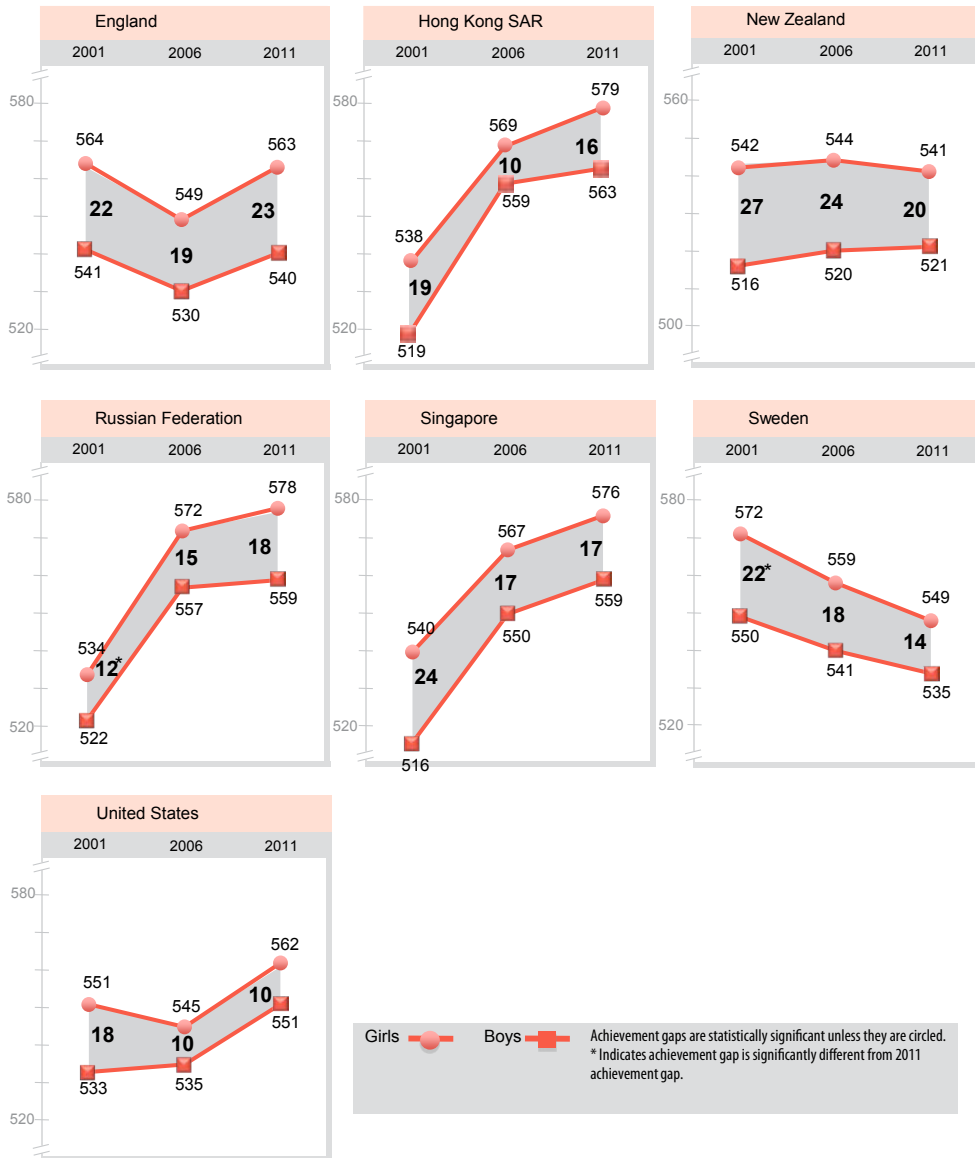
3.2 Trends in the performance of boys and girls in PIRLS

Girls have performed better than boys in all three PIRLS surveys in England. The extent of the difference has not changed significantly over time. From the group of comparator countries who have participated in all three PIRLS surveys, only two show significant change (see Table 3.2). In Sweden, the gap in 2011 was significantly

narrower than that in 2001; this has been accompanied, however, by an overall decline in scores over this time. In the Russian Federation, the gap between boys and girls has increased between 2001 and 2011. This is due to girls' achievement improving at a faster rate than that of boys.

Whilst the United States has not significantly reduced the gender gap since 2006, it has both improved performance and maintained a gap that is smaller than the international average.

Table 3.2 Trends in reading achievement by gender



Scale interval is 10 points for each country, but the part of the scale shown differs according to each country's average achievement.

Source Exhibit 1.7 in the 2011 international PIRLS report

3.3 Language context

The PIRLS assessments were undertaken in English in England but information was collected from the pupils as to whether they spoke another language at home, and if so, the frequency of this. The data in Table 3.3 indicates that a greater proportion of pupils with English as an additional language were involved in PIRLS in 2011 than in 2001, whereas the proportions in 2006 were similar to those in 2011.

Table 3.3 Pupils' reports of frequency of speaking English at home

Year of survey	Always		Sometimes		Never	
	Per cent of pupils	Average achievement	Per cent of pupils	Average achievement	Per cent of pupils	Average achievement
2001 ²	88 (1.0)	559 (3.4)	11 (0.9)	510 (5.9)	1 (0.2)	–
2006 ³	76 (1.3)	546 (2.7)	23 (1.2)	532 (4.5)	1 (0.2)	–
2011	79 (1.7)	556 (2.8)	20 (1.6)	540 (4.4)	1 (0.2)	–

Dash indicates insufficient data to report achievement

In all three surveys there is an association between language use and attainment in that pupils who use solely English at home have higher mean achievement than those who use English *Sometimes*. It is notable this difference was considerably smaller in 2006 and 2011 than it was in 2001.

In 2011, headteachers were asked about the proportion of pupils in their school who spoke the language of the test as their first or only language. This is shown in Table 3.4, alongside the mean achievement of pupils.

Table 3.4 Schools with pupils having the language of the test as their first or only language

Reported by headteachers

Country	More than 90% of pupils		51–90% of pupils		50% of pupils or less	
	Per cent of pupils	Average achievement	Per cent of pupils	Average achievement	Per cent of pupils	Average achievement
Australia	63 (3.8)	533 (2.9)	21 (2.8)	521 (5.7)	16 (3.1)	516 (9.0)
Canada	55 (2.7)	550 (1.9)	27 (2.6)	550 (4.5)	19 (2.0)	542 (3.9)
Chinese Taipei	49 (3.8)	556 (2.9)	36 (3.8)	551 (3.5)	15 (2.6)	549 (5.3)
England	60 (4.5)	558 (3.7)	19 (3.8)	550 (7.2)	21 (3.9)	532 (7.3)
Finland	85 (3.2)	569 (1.8)	15 (3.1)	562 (5.6)	1 (0.8)	~ ~
Hong Kong SAR	98 (1.2)	570 (2.4)	2 (1.2)	~ ~	0 (0.0)	~ ~
Ireland, Rep. of	64 (3.8)	560 (2.9)	33 (3.8)	539 (4.4)	3 (1.7)	510 (19.7)
New Zealand	65 (3.8)	542 (3.3)	26 (3.4)	525 (5.3)	9 (2.1)	494 (11.1)
Northern Ireland	88 (3.1)	560 (2.8)	7 (2.4)	546 (10.5)	4 (1.9)	549 (12.4)
Russian Federation	73 (3.7)	570 (3.2)	17 (2.8)	565 (4.5)	9 (2.3)	562 (11.7)
Singapore	2 (0.0)	~ ~	32 (0.0)	582 (5.3)	65 (0.0)	558 (4.3)
Sweden	57 (3.6)	549 (3.3)	28 (3.1)	545 (4.1)	15 (2.9)	507 (8.1)
United States	54 (2.5)	567 (2.6)	31 (2.5)	554 (3.6)	14 (1.8)	529 (4.0)
International Avg.	68 (0.4)	515 (0.5)	17 (0.4)	511 (1.6)	14 (0.3)	490 (2.2)

() Standard errors appear in parentheses. Because of rounding some results may appear inconsistent. A tilde (~) indicates insufficient data to report achievement.

SOURCE: Adapted from IEA's Progress in International Reading Literacy Study – PIRLS 2011

Source Exhibit 5.3 in the 2011 international PIRLS report

In England, a fifth of pupils are in schools where headteachers estimate that at least half the pupils have English as an additional language. Their attainment is well above the international average at 532 scale points. The equivalent figures in PIRLS 2006 were nine per cent of pupils whose average achievement was 483 scale points⁴.

National data⁵ reports 17 per cent of pupils of compulsory school age and above in maintained primary schools in 2010/11 having English as an additional language, an increase from 13 per cent in 2006⁶. Headteachers in Hong Kong reported little variation in language among their pupils whereas the opposite was the case in Singapore.

² Twist, L., Sainsbury, M., Woodthorpe, A. and Whetton, C. (2003). *Reading All Over the World: Progress in International Reading Literacy Study (PIRLS)*. National Report for England. Slough: NFER.

³ Twist, L., Schagen, I. and Hodgson, C. (2007). *Readers and Reading the National Report for England 2006 (PIRLS: Progress in International Reading Literacy Study)*. Slough: NFER.

⁴ Twist, L., Schagen, I. and Hodgson, C. (2007). *Readers and Reading the National Report for England 2006 (PIRLS: Progress in International Reading Literacy Study)*. Slough: NFER.

⁵ Department for Education (2011). *Statistical First Release: Schools, pupils and their characteristics, January 2012*. Available: <http://www.education.gov.uk/rsgateway/DB/SFR/s001012/index.shtml>

⁶ Department for Education and Skills (2006). *Statistical First Release: Schools, pupils and their characteristics January 2006. (Final)*. Available: <http://www.dfes.gov.uk/rsgateway/DB/SFR/>